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New IT titles portend a revolution in IT roles.

PAGE 24

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VOL. 42, NO. 15 $5/COPY

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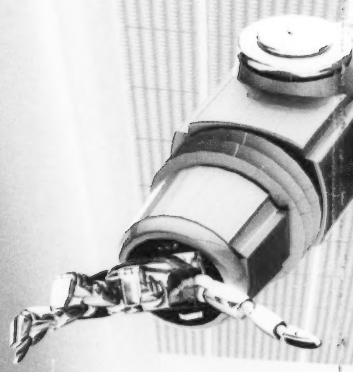

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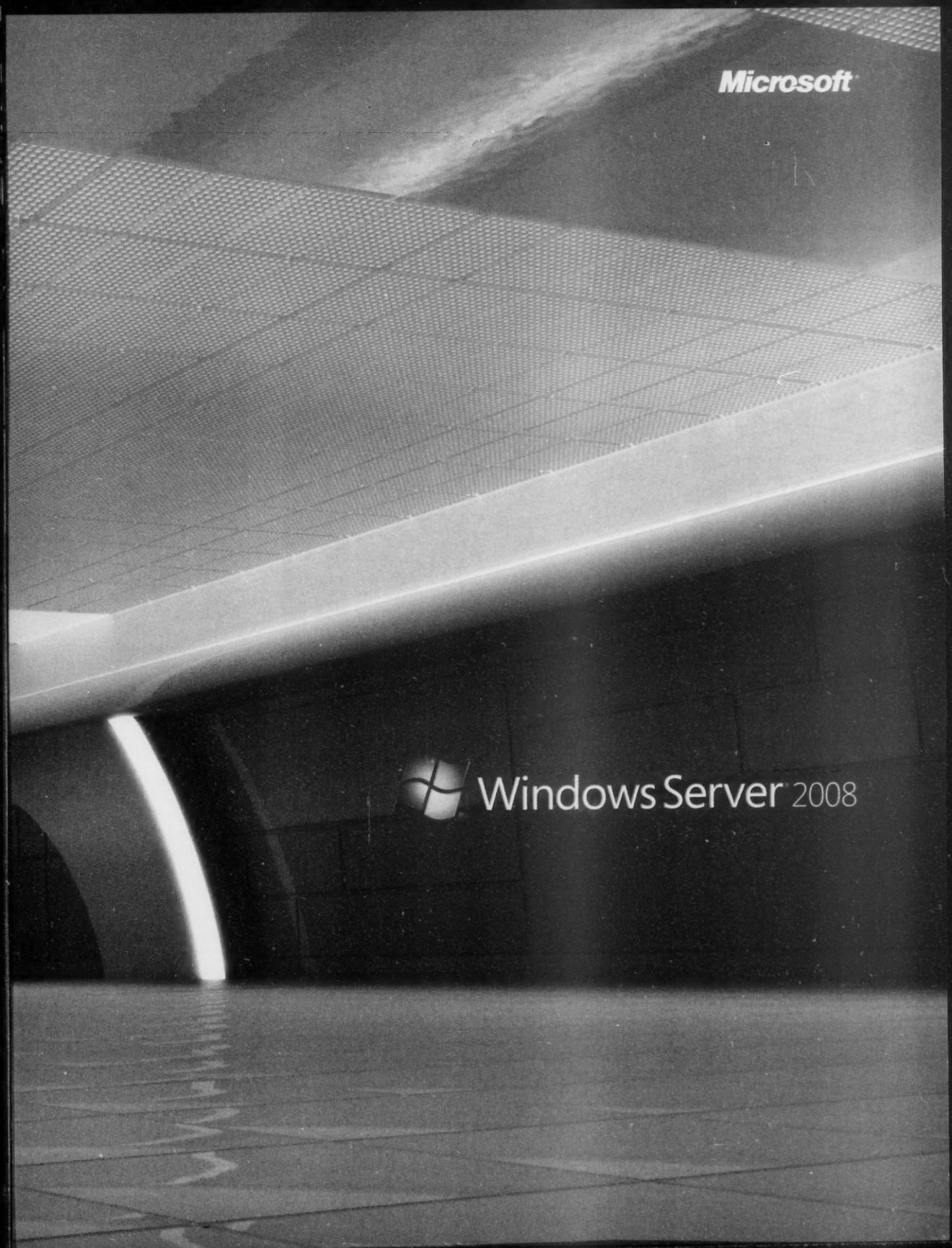
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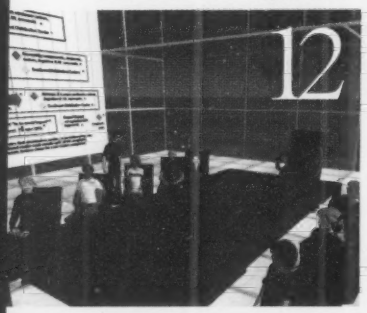

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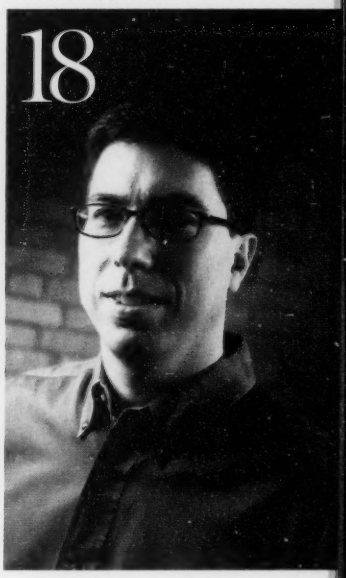

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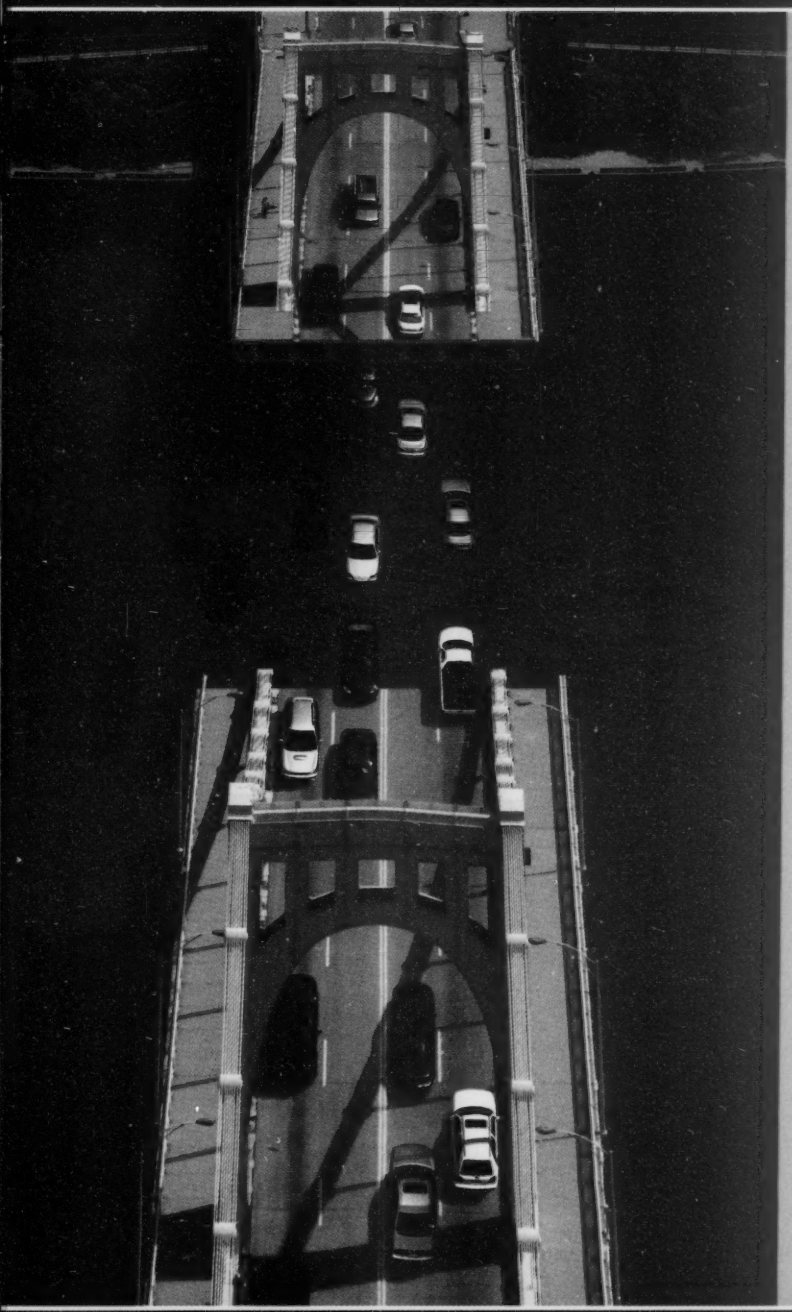

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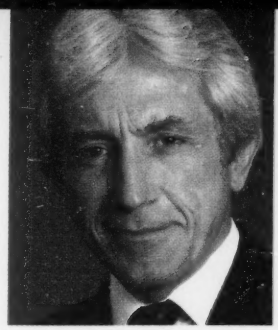
■ EDITOR'S NOTE

Don Tennant

Earning Their Keep



ONE OF the reasons I enjoy covering the IT profession so much is that if you put five IT pros in a room to discuss a particular topic, you're likely to get at least six different opinions about it. So when I raised the issue of substance abuse within the IT industry in my blog last week, I fully expected to get the full gamut of reader comments. I wasn't disappointed.

It was a reader who raised the question in the first place, and as I said in my blog post, I hadn't given the issue much thought. So I just threw the question out there: Based on your experience, how widespread is substance abuse among people in the IT field? Not surprisingly, some of that experience has been painful.

"Prior to finally sobering up two years ago, I regularly spent many an evening doing remote support from inside a bottle," one reader wrote. "Long nights and the morning after were almost always propped up with pills. This coping strategy was learned from the other pros that I worked with at three separate shops."

Another reader said that his drinking problem led him to seek treatment and to ultimately become a substance abuse counselor. Many of his clients "were brilliant in their computer-related fields," he said, "but also abused alcohol and illegal drugs."

It's an emotional issue, to be sure. Just raising it was enough to anger one reader.

"Simply asking the question, 'Is my profession rife with substance abuse?' plays right into the agenda of the drug warriors, who are addicted to something more powerfully destructive and addictive than heroin or crack: power," he wrote. He railed against "rampant drug testing [that] has driven a lot of pot smokers out of IT," and he insisted that there's no evidence that drug testing increases productivity.

Other readers agreed that there are fewer abusers now than there were in the past. "I'll admit when I started in this field [15 years ago], there seemed to be a high percentage of pot-headed programmers," one wrote. "I don't know of anyone these days who uses and abuses anything other than caffeine."

■ One reader clearly misses the good old days of hard partying with alcohol, pot and pills.

One reader clearly misses the good old days.

"After spending almost 30 years as a professional software engineer . . . I have seen just about every and anything 'abused.' Alcohol, pot, pills . . . have all been a part of every hard-working, hard-partying, high-performance group I've seen," he wrote. "Granted, these days with the influx of so many third-world engineers, whose family heritage and religions take a dim view of these activities, the fun part of software development is dying out, as is the humor. Too damn bad, IMHO."

And from the opposite end of the spectrum: "As a supervisor, I will not trust [substance abusers] to exercise good judgment or hold a trusted position," wrote a reader who showed little patience for downplaying the issue. "How can they possibly have the interests of the company in mind if they are tearing themselves apart?"

Of course, the expression of all these views still doesn't answer the initial question. How widespread is substance abuse among people in the IT field?

A June 2007 study by the U.S. Department of Health and Human Services found that IT professionals are on the lower end of the substance-abuse scale. Occupations were categorized into "management" (which includes computer and information systems managers) and "mathematical and computer scientists" (which includes programmers, software engineers, systems analysts, and database and network administrators).

The percentage of workers using illicit drugs in the past month was 6.1 for management and 6.9 for the math/computer group. The numbers for heavy alcohol use in a given month were 7.9 and 5.9, respectively. In comparison, 17.4% of food service workers reported using illicit drugs in the past month, while 17.8% of construction workers reported heavy alcohol use.

Those numbers, which are based on data collected from 2002 to 2004, are encouraging, and anecdotal evidence suggests that they might be even lower now. Maybe those people with different family heritages and religions have earned their keep after all. ■

Don Tennant *is editorial director of* Computerworld *and* InfoWorld. *Contact him at don_tennant@computerworld.com, and visit his blog at* http://blogs.computerworld.com/tennant.

Another Threat to The IT Profession

As long as only a small percentage of businesses follow the path described in the Feb. 19 article "IT Career Paths You Never Dreamed Of," there will be no problem. But if all businesses follow the "no traditional IT career" trend, there will be no motivation for entry-level people to learn their craft and broaden their knowledge of business. We have already seen this with the decrease in computer science majors.

The companies that choose this path assume that all strategic technology integration is over. I would suggest that we are at the end of the beginning of the IT integration cycle, waiting for another major industrial technological infusion.

■ **Raymond Crews,** *McAllen, Texas*

Doubts About How Far Integration Can Go

It's true that IT people have had to acquire more business skills to do their jobs effectively. I'm not sure, though, to what extent IT people will ever actually integrate or morph into the business itself, as CSC CIO David McCue seems to envision ["IT Anachronism," Editor's Note, Feb. 25].

The problem is implicit in the analogy Don Tennant used in his column. People (and businesses) integrated into the Internet because a variety of easy-to-use tools (like Web browsers) and services (like wikis and portals) sprang into being. It's very easy now for almost anyone to book a vacation, search for information, purchase books and CDs, socialize with their peers or manage their investments online.

However, creating business applications still seems to require enormous amounts of effort (and time and money), along with the specialized skills of dedicated professionals. Business users don't yet have the tools to create their own applications, nor would most of them wish to do so if it required specialized knowledge or took too much time from their work. If and when business users are able to create their own apps quickly and easily, then IT people will have to morph into the business as "technology mentors," as McCue puts it, or become obsolete. Until then, IT people will probably have to remain separate from the business and focus on trying to stay at least even with business requirements.

■ **Larry Burns,** *database consultant, PACCAR ITD, Renton, Wash., lburns@paccar.com*

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The Top 10 Tech Toys to Blow Your Tax Return On

The IRS says the average taxpayer will receive about $2,300 back from the government this year. Sure, you could invest it – but buying this stuff would be a lot more fun.

Linux Ignored, Not Immune, Says Hacker Contest Sponsor

The only laptop left secure was the one people were least interested in.

Opinion: Leopard's Most Overlooked Features

Mac OS X 10.6 has more than 300 new features. We point out 25 that are too useful (or just too cool) to ignore.

Blog: 5 Reasons to Ditch the Mac Debunked

Seth Weintraub examines a CTO's choice to switch to Windows for productivity gains.

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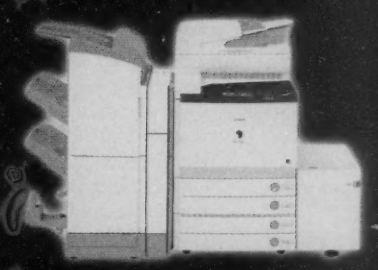

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News Digest

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THE WEEK AHEAD

MONDAY: Storage Networking World Spring 2008, which is run by *Computerworld*, opens in Orlando.

MONDAY: The executive advisory board of the MIT Kerberos Consortium is due to meet, with Microsoft taking part for the first time after joining the single-sign-on group last week.

TUESDAY: Microsoft plans to issue eight software updates as part of its monthly patch release. Meanwhile, the security-focused RSA Conference 2008 starts in San Francisco.

COURTESY OF OKEMO

SECURITY

Vermont Ski Area Reports Hannaford-like Data Theft

IN A SECURITY BREACH that sounds similar to the one disclosed by Hannaford Bros. Co. last month, the Okemo Mountain Resort in Vermont said last week that data from more than 46,000 credit and debit card transactions may have been compromised during a system intrusion in February.

Okemo said in a security advisory on its Web site that the breach may have exposed data from payment cards used at the ski area between Feb. 7 and 22, the time frame in which the intrusion took place. The intruder or intruders may also have accessed data from card transactions processed between January and March of 2006, according to the advisory.

Okemo spokeswoman Bonnie MacPherson said that the data from the cards used in February appears to have been stolen as the transactions were being authorized. "This was a real-time theft," she said. "The information was being taken as the cards were being swiped."

If that is actually the case, it could make the breach at Okemo a close cousin to the much larger one announced by Hannaford on March 17. Hannaford said in a notification letter sent to Massachusetts officials last month that malware installed on servers in each of its grocery stores intercepted card data as the information was being transmitted from point-of-sale systems during the authorization process.

Up to 4.2 million credit and debit card numbers, plus the expiration dates of the cards, were stolen by the malware program and sent to a server hosted by a foreign ISP, Hannaford said. The Scarborough, Maine-based grocer said the discovery of the malware installation prompted a wholesale replacement of its store servers.

Hannaford and Okemo may not be the only businesses disclosing breaches involving payment-card data in transit between systems. According to McPherson, law enforcement authorities who are investigating the breach at Okemo told resort officials that they are looking into about 50 reported incidents of the same sort in the Northeast alone.

McPherson said the system intrusion was discovered in late February, but she declined to comment on how the resort learned of it, citing the ongoing investigation. She added that Okemo has taken steps to close the breach and prevent further intrusions but again didn't disclose any specific details.

— Jaikumar Vijayan

GOVERNMENT

Feds Ban, Then Allow, Bids by IBM

IBM disclosed last Monday that it had been temporarily suspended from seeking federal IT contracts because of dual investigations into a bid it submitted to the U.S. Environmental Protection Agency in March 2006.

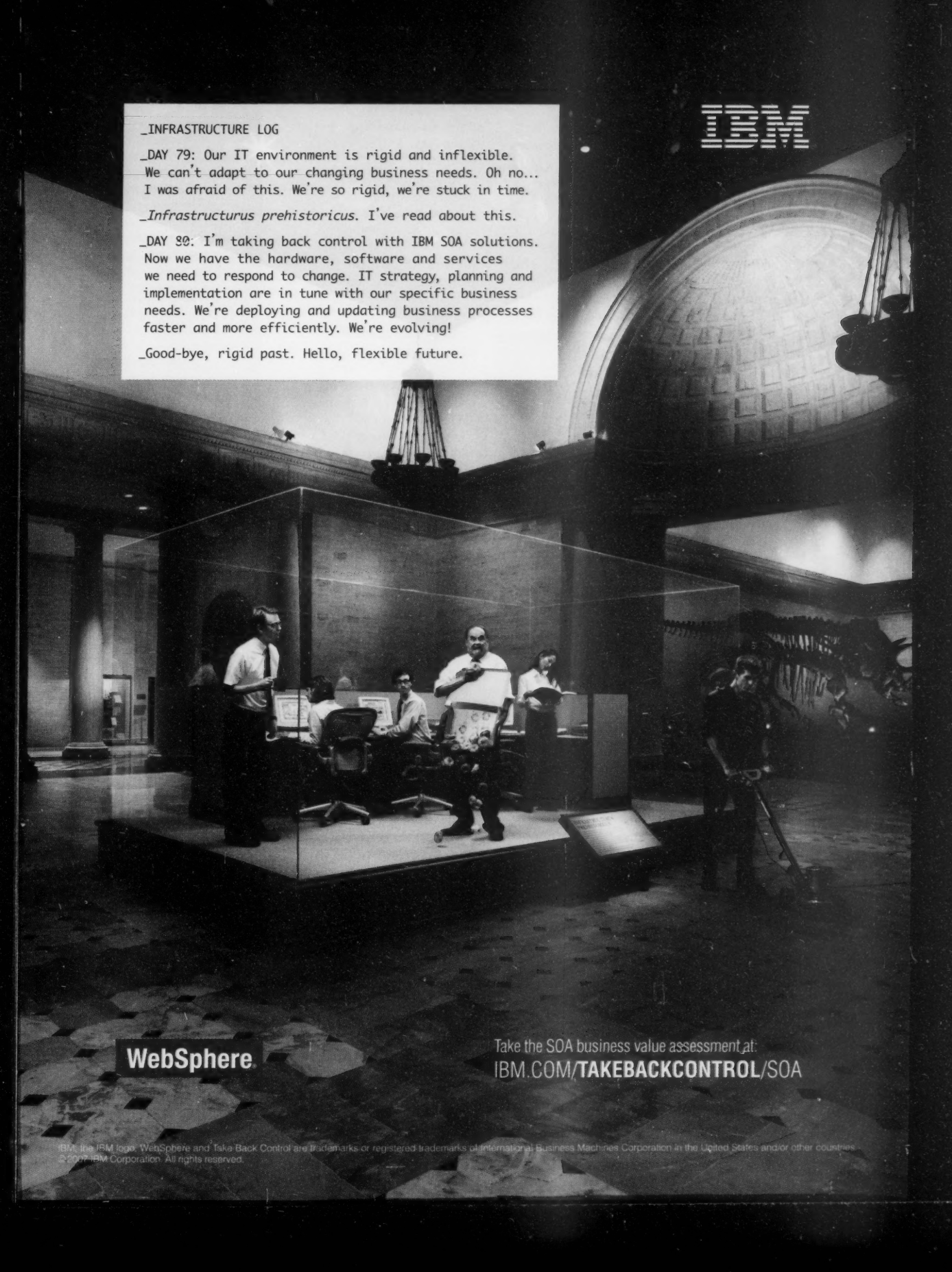
But the suspension, which was imposed by the EPA on March 27, barely lasted a week. IBM and the General Services Administration said separately on Friday that the EPA had lifted the ban on bids by the vendor.

According to the government's USAspending.gov Web site, IBM won contracts worth $1.4 billion during the 2007 federal fiscal year.

IBM's problems may not be over, though. The company still faces an investigation by the EPA into possible violations of federal procurement integrity rules. In addition, federal prosecutors in Virginia have launched a grand jury probe focusing on "interactions between employees" of IBM and the EPA, according to the company.

IBM said Friday that it will continue to cooperate with federal officials on both of the investigations.

– PATRICK THIBODEAU


_INFRASTRUCTURE LOG
_DAY 79: Our IT environment is rigid and inflexible. We can't adapt to our changing business needs. Oh no... I was afraid of this. We're so rigid, we're stuck in time.
_*Infrastructurus prehistoricus*. I've read about this.
_DAY 80: I'm taking back control with IBM SOA solutions. Now we have the hardware, software and services we need to respond to change. IT strategy, planning and implementation are in tune with our specific business needs. We're deploying and updating business processes faster and more efficiently. We're evolving!
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SOFTWARE

Open XML Passes ISO Test on Its Second Try

MICROSOFT Corp.'s effort to speed the adoption of its Office Open XML document format passed a crucial test last week with the ISO international standards body's approval of the specification as a draft standard.

The Open XML specs must now make their way through the Geneva-based organization's formal two-month appeals process. Any of the 41 countries that participated in the development of the draft standard can appeal the ISO vote.

Tom Robertson, general manager of interoperability and standards at Microsoft, said the vote showed "overwhelming support" for Open XML, with 86% of voters approving the proposed standard.

Nonetheless, analysts said there's a good chance that the vote will be appealed.

Protests over the ISO voting process and outcomes are not uncommon, noted Jan van den Beld, a consultant who does work for the Computing Technology Industry Association.

Already, some members of the Norwegian standards committee have asked that country's Ministry of Trade and Industry to investigate the voting process. They contend that Norway voted for the standard even though a majority of committee members were against it.

Michiel Leenaars, a member of the Netherlands' national standards committee and a backer of the rival Open Document Format for Office Applications (ODF), asserted that Open XML still isn't ready for use.

"It would have been better for the world, probably, if it had gone back to the drawing board and come back as an ISO standard in two years, with all the work done," Leenaars said.

ODF is already an ISO standard.

After standards group Ecma International ratified Open XML in December 2006, it proposed the Microsoft file format as an ISO standard.

After an unsuccessful ISO vote to approve Open XML last September, Ecma modified the specification based on thousands of comments submitted by vendors and members of national standards bodies.

If Open XML survives the appeals process, the next step for Microsoft will likely be a proper implementation of the standard in Office 2007 — the suite that sparked a file format war because it lacked ODF technology.

— Peter Sayer, IDG News Service

OPEN XML

Path to Approval

December 2006: Ecma approves format as standard.

September 2007: ISO rejects Open XML proposal.

April 2008: ISO tentatively approves new Open XML plan.

June 2008: Period to appeal latest vote ends.

Short Takes

Dell Inc. plans to cut costs by $3 billion by reducing operating expenses, including eliminating 8,800 jobs and a PC manufacturing plant in Austin. Dell said it has already decreased its workforce by 3,200 people.

EMI Music has hired Google Inc. CIO Douglas Merrill to head its digital business division. The move comes less than a month after the departure of Sheryl Sandberg, who resigned as Google's vice president of online sales and operations to become COO at rival Facebook Inc.

The U.S. Department of Homeland Security has granted South Carolina an extension for complying with the controversial federal Real ID program. The DHS extended the deadline despite the state's refusal to comply with the law's mandates.

Intel Corp. unveiled its low-power, newly architected Atom processor line at its developer forum in Shanghai. The chips are aimed at the embedded and mobile Internet device markets.

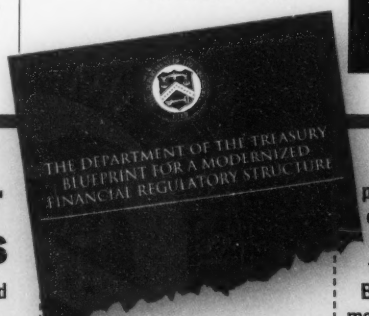
GOVERNMENT

Treasury Wants IT Link for Monitoring Financial Firms

TO ENSURE THAT federal officials are "instantaneously" made aware of problems in financial markets, the U.S. Department of the Treasury wants banks, insurers and financial services firms to provide regulators with real-time data on their business operations.

But doing so would likely require the financial industry to adopt new technologies – and spend a good deal of money.

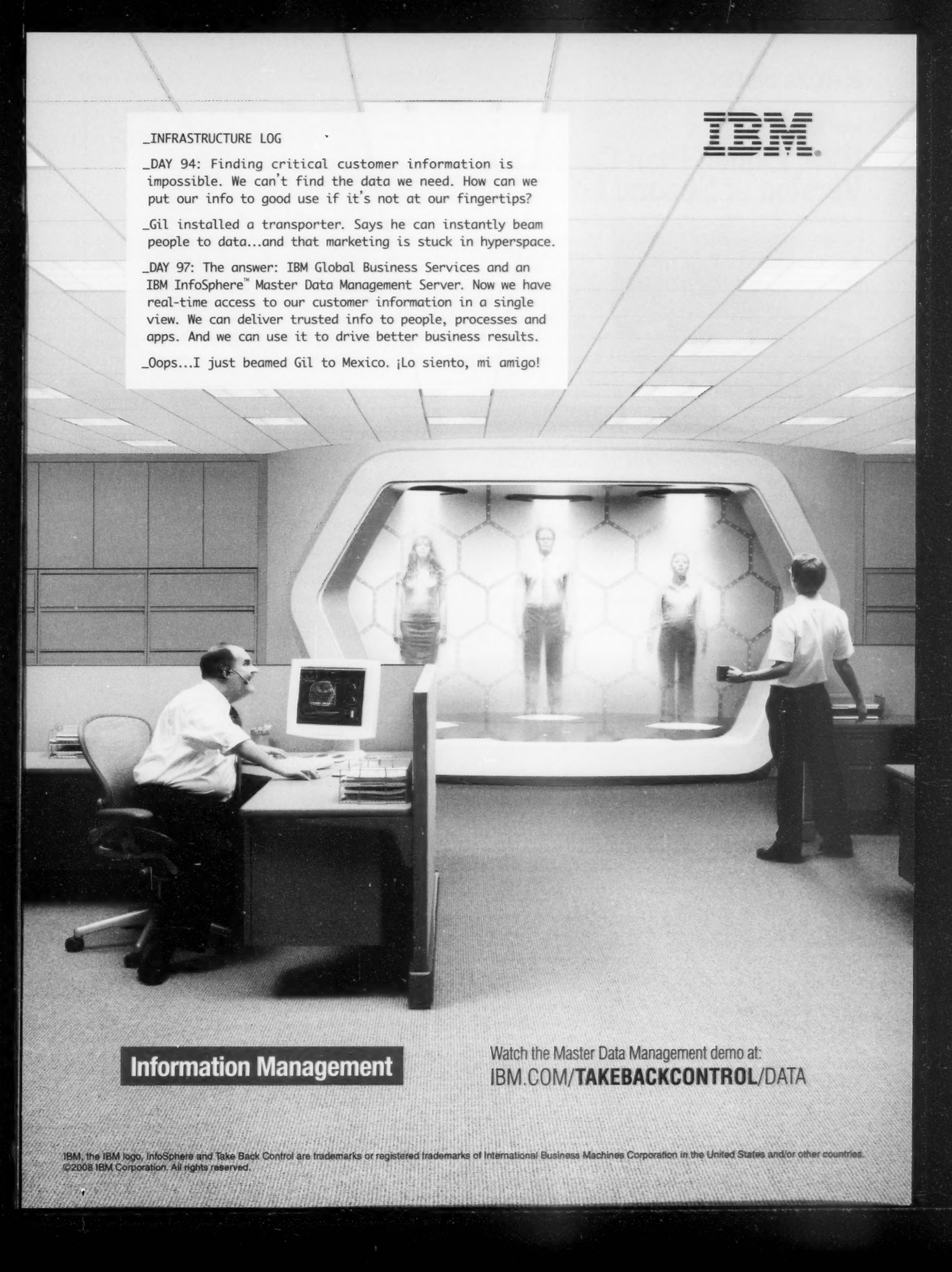
The Treasury made its pitch for using IT to modernize the regulatory process in a blueprint document released last week. Agency officials hope to use the IT equivalent of a heart monitor attached to financial services firms to help prevent future problems similar to the ones now afflicting the financial markets – the subprime mortgage crisis, for instance.



But that won't happen overnight, and Treasury Secretary Henry Paulson said the blueprint's recommendations won't fix the current problems. He took pains to point out that the proposal is just the start of a discussion that "will not be resolved this month or even this year."

But if the Treasury's recommendations do become a new framework for regulation, "the impact would be huge," said Jeanne Capachin, an analyst at IDC's Financial Insights unit. Capachin added that many financial services firms have yet to install the kind of dashboard systems the agency is calling for.

– PATRICK THIBODEAU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_Gil installed a transporter. Says he can instantly beam people to data...and that marketing is stuck in hyperspace.
_DAY 97: The answer: IBM Global Business Services and an IBM InfoSphere™ Master Data Management Server. Now we have real-time access to our customer information in a single view. We can deliver trusted info to people, processes and apps. And we can use it to drive better business results.
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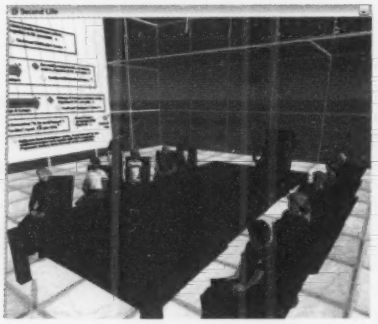
WEB 2.0

IBM, Linden Plan Corporate Version of Second Life



IBM and Linden Research Inc., the creator of Second Life, last week announced a joint effort to extend the virtual world technology to improve collaboration among corporate workers.

The companies said the new offering will mark the first time that a portion of the Second Life Grid will operate behind a corporate firewall. IBM and Linden demonstrated parts of the grid running behind IBM's firewall at the Virtual Worlds 2008 conference last week in New York.

IBM, one of the largest corporate users of Second Life, said that the new technology will allow its employees to move between its custom-built, firewall-protected Second Life environment and the open version of the virtual world without having to log on and off.

Linden and IBM's goal is to enable other corporate workers to use a single Second Life client interface to access both public and private spaces. As part of their agreement, IBM and Linden plan to join industry efforts to ease communication among users of social networks run by different vendors.

Paul Jackson, an analyst at Forrester Research Inc., said the joint effort may address corporate concerns about the security of virtual worlds.

He noted that the technology underlying virtual worlds "wasn't an infrastructure designed to be particularly secure or robust for enterprise applications." IBM's involvement should help convince IT managers to try the technology, he said.

Virtual worlds could prove useful in corporate settings because they offer a more natural way for employees to communicate than teleconferences or instant messaging, according to Jackson.

— Heather Havenstein

BETWEEN THE LINES *By John Klossner*

BENCHMARKS LAST WEEK

SAP AG promoted Leo Apotheker from deputy CEO to co-CEO, positioning him as the likely successor to Henning Kagermann, who has been running the software vendor since 2003.

Microsoft Corp. extended the availability of Windows XP Home Edition for low-cost laptops but said it will stop selling other versions on June 30 as planned.

FOUR YEARS AGO: Sun Microsystems Inc. and Microsoft, then bitter rivals, settled an antitrust lawsuit and patent disputes and agreed to make their products more interoperable.

Global Dispatches

IT Cuts to Cause Loss of U.K. Jobs

LONDON – Reductions in technology spending could result in up to 11,000 jobs being cut from the U.K.'s financial services industry over the next three months, according to a forecast released last week by the Confederation of British Industry (CBI).

That prediction is based on the results of the London-based lobbying group's U.K. Financial Services Survey. PricewaterhouseCoopers conducted that survey for the CBI, polling executives at 79 companies between Feb. 20 and March 5.

The survey found that "plans for capital investment in the year ahead are very weak, with plans for spending on IT flat," the CBI said in a statement.
Computerworld U.K. staff

Shell Inks Three IT, Telecom Deals

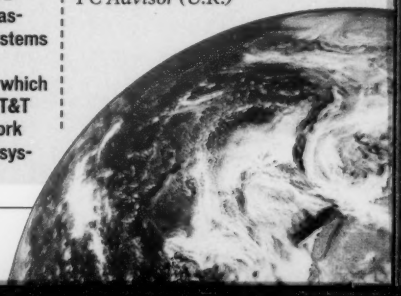
THE HAGUE – Royal Dutch Shell PLC has awarded five-year outsourcing deals to three global IT and telecommunications companies. The contracts are worth about $4 billion (U.S.) collectively.

Shell, which is based here, said that 3,000 of its IT workers will be transferred to the three outsourcers – Frankfurt-based T-Systems International GmbH, San Antonio-based AT&T Inc. and Plano, Texas-based Electronic Data Systems Corp.

Under the agreements, which go into effect on July 1, AT&T will manage Shell's network and telecommunications systems, T-Systems will handle hosting and storage operations for the oil and gas company, and EDS will be responsible for end-user computing services and integration services.
Siobhan Chapman,
Computerworld U.K.

BRIEFLY NOTED

Dell Inc. is charging U.K. consumers about 8% more than it charges U.S. consumers for a new Inspiron 1525 laptop with a Blu-ray drive. The laptop's price tag is $879 (£441) in the U.S. but £475 ($950 U.S.) in the U.K. Dell officials didn't comment on the price difference.
Carrie-Ann Skinner,
PC Advisor (U.K.)



KASPERSKY lab

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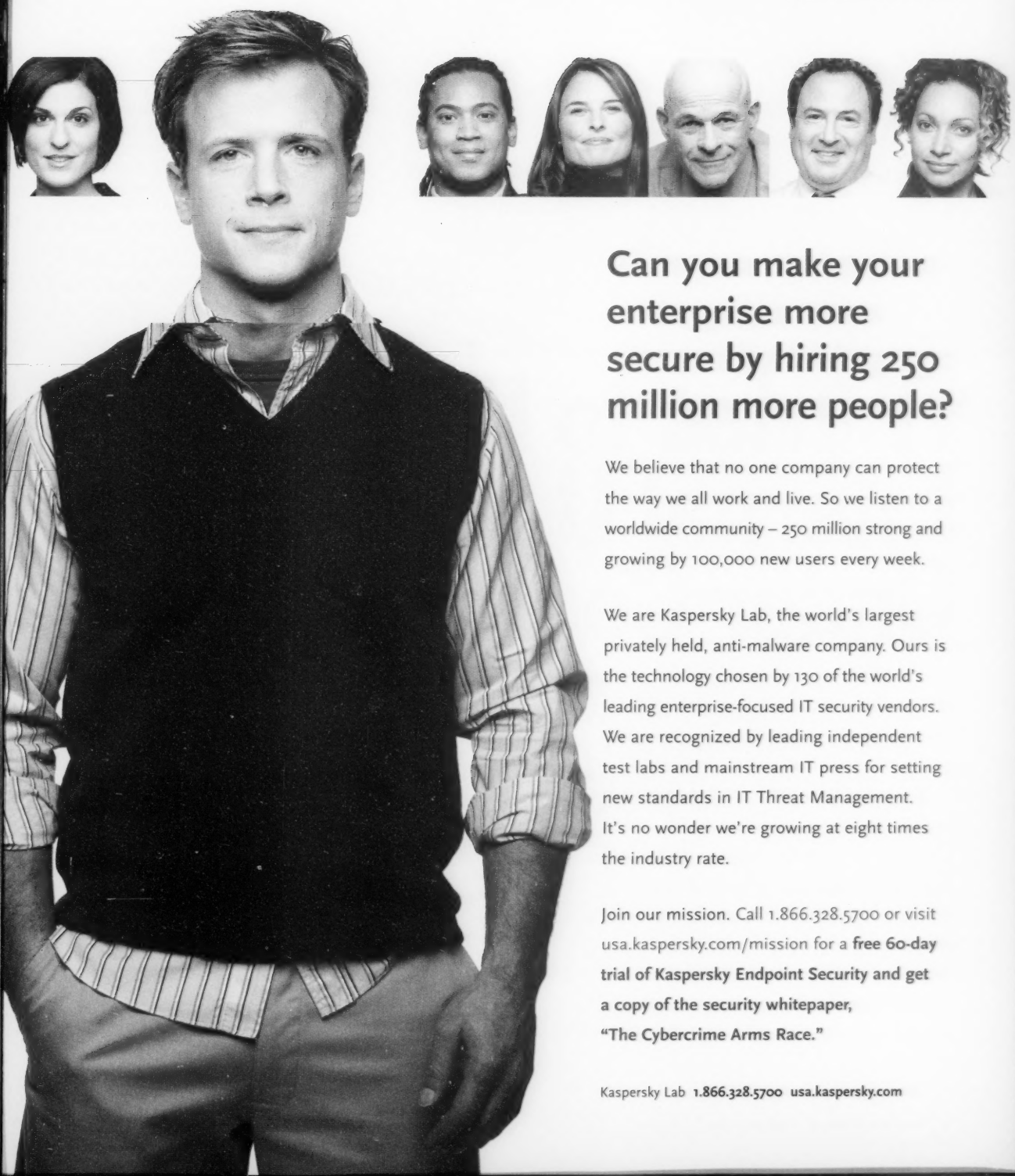

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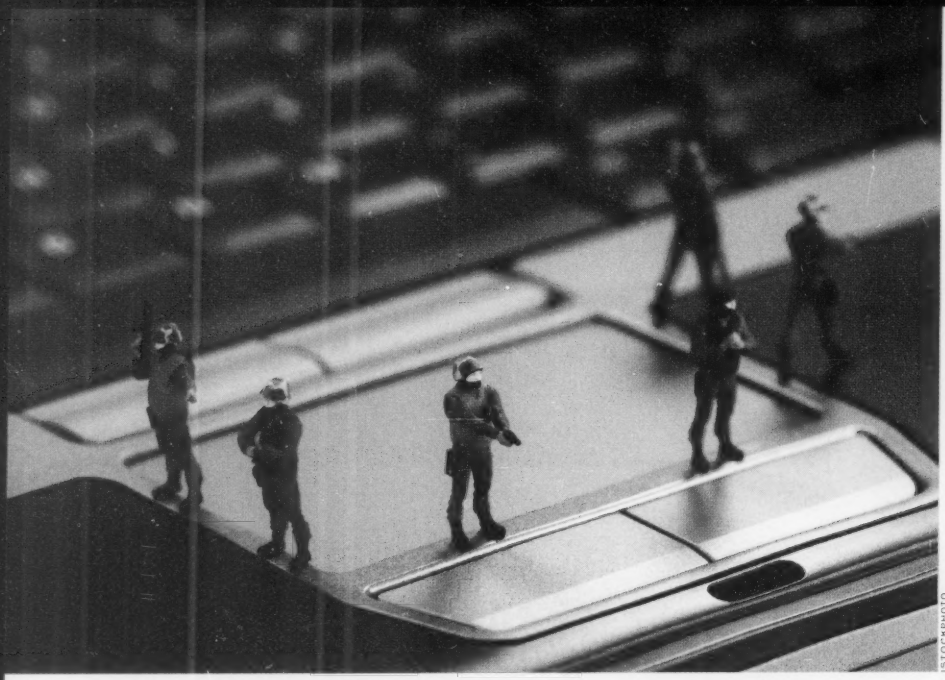


ISTOCKPHOTO

IT Tries to Keep Internal Users Under Control

Activity-monitoring tools may be able to help stop rogue insiders from compromising data. But they aren't being widely adopted yet.

By Jaikumar Vijayan

WHEN it comes to protecting his company's data, Tom Scocca doesn't mind that he might be seen as something of a Big Brother by internal end users.

Scocca, who is a global security consultant at a large company that supplies products to the semiconductor industry, thinks that threats from within businesses require as much attention from security managers as external threats do.

So in addition to the usual network perimeter defenses, Scocca has put monitoring tools on end-user PCs and internal networks to help guard against inadvertent or malicious data breaches.

"There is a bit of a Big Brother syndrome attached to it," he acknowledged. But IT managers need to get over their trepidation about being called snoops, added Scocca, who asked that his employer not be named.

"These tools are not there to spy on people," he said. Rather, they're designed to "make sure the things that keep the revenues rolling in aren't compromised."

The issue of rogue insiders surfaced in a high-profile way last month, when the U.S. Department of State disclosed that three contract workers with access to its systems had improperly viewed the passport records of presidential candidates Hillary Clinton, John McCain and Barack Obama. The activities of the contractors were detected by a security-monitoring system designed to alert administrators whenever flagged passport files are accessed.

But technologies that can keep a close eye on the activities of internal users have yet to be widely adopted. For example, Gartner Inc. analyst John Pescatore estimates that less than 30% of Fortune 5,000 companies have installed such tools.

The lack of active monitoring of end users is a big reason why some insiders have been able to pull off spectacular data heists without getting caught — at least not right away.

A prime example is the case of Gary Min, a former research scientist at DuPont who in 2005 downloaded about 22,000 document abstracts containing confidential information about most of the company's major products. Min was caught only after he gave his notice;

at that point, an internal investigation showed that he had accessed about 15 times more data than the next-highest user of DuPont's electronic document library.

In another prominent insider case, Certegy Check Services Inc. disclosed last summer that a database administrator had sold the personal and financial information of 8.5 million consumers to data brokers over a five-year period. The check-processing firm didn't nab the DBA until a retailer reported a link between check transactions and marketing solicitations that some of its customers had received.

To try to avoid becoming the next DuPont or Certegy, Scocca's company is using a pair of tools from Raytheon Oakley Systems Inc. One is a desktop agent called SureView that monitors all activity on an end user's system to make sure that no data or computer usage policies are violated. If a violation does occur, the agent issues an alert to the company's security team and begins collecting data for further review.

The tool features a video-like playback feature that lets security administrators view precisely what a user was doing before, during and after a policy violation was flagged, Scocca said. That can help the admins determine almost instantly whether the violation was an accident or the result of deliberate action, he added.

Complementing the desktop agent is a monitoring tool called CoreView that keeps an eye on all internal network traffic for sensitive or inappropriate material.

Other vendors that sell products designed to help companies stop insider threats include Symantec Corp., Vericept Corp., Websense Inc., Tizor Systems Inc., Fidelis Security Systems Inc., Tripwire Inc. and Reconnex Inc. Other vendors, such as Guardium Inc. and Imperva Inc., offer tools that monitor database activity and check for improper access and other abuses.

Tampa International Airport is using system-log monitoring and analysis software from LogRhythm Inc. as part of its effort to comply with Florida's data retention laws and the Payment Card Industry Data Security Standard. And because the software can quickly correlate log events from practically every IT system, it also serves as both a real-time alerting system and an after-the-fact forensic tool, said Katherine Mullin, the airport's IT systems security manager.

Pasadena Federal Credit Union has set up a log management product from TriGeo Network Security Inc. to take actions such as quarantining a computer when it detects a policy violation. Mike McDannel, the Pasadena, Calif.-based credit union's IT security manager, said his team is also using a companion tool that can send alerts when users insert unapproved USB devices into their computers.

Gartner's Pescatore said he expects the adoption of user-monitoring tools to pick up, largely because of regulatory compliance needs. But such technologies have their limits. For one thing, tools that are designed to restrict user actions, such as downloading data onto USB drives, may require far too many built-in rules in order to distinguish between legitimate and illegitimate activities. "It's hard to describe *authorized* to a computer," Pescatore said.

And if tools are set up to generate real-time alerts about data leaks, there's a danger of being overwhelmed by false positives if the rules aren't set properly. That's particularly true, Pescatore said, when monitoring software is used to track data that may not be well defined, such as intellectual property.

Prat Moghe, chief technology officer at Tizor, which sells data-auditing software, acknowledged that many of the tools available for protecting data from inside threats remain unfamiliar to most IT managers. "These are still early days for this industry," Moghe said. "There's a lot of confusion." ■

Feds Face Need To Balance Data Access, Security

THE U.S. GOVERNMENT'S reputation for protecting data has been hurt by a parade of bad headlines about spies, stolen laptops and, most recently, some State Department contract workers snooping into passport files.

But the inability of intelligence agencies to share data that might have helped them detect the events that led up to the 9/11 terrorist attacks may have been the government's biggest information failure ever. And balancing data accessibility and security has become a big challenge for federal agencies in the post-9/11 era.

Improving data sharing remains a work in progress at many agencies. For instance, the Department of Defense wants to create an enterprisewide view of data with the flexibility to put information into the hands of an "unanticipated user," said Lloyd Thrower, director of strategic planning and transformation in the DOD CIO's office.

By "unanticipated user," he means a person or department not originally expected to need a certain piece of data – an Army unit that wants to use a satellite photo taken by the Air Force, for example. The DOD needs to ensure that data is tagged appropriately and that user authorization criteria are attached to it, Thrower said. Credentials encoded in ID cards then can determine whether users are allowed to access information.

Making data broadly visible "doesn't mean that everybody is going to get a hold of it," Thrower added. "It just means that anybody can determine that there is this type of information in existence."

Lucian Russell, a consultant at Expert Reasoning & Decisions LLC, said that agencies are typically inclined to limit data access in order to "reduce the risk to zero. It's sort of like the mentality of the Cold War."

But even that may not be fail-safe. The passport-files breach was a case of misplaced trust in workers, not a technology failure. And take the case of that satellite photo. "How do I make sure that a person requesting it isn't being held by gunpoint out in the field?" Russell said. "These are the kinds of questions that come up."

– PATRICK THIBODEAU

IBM Follows Path Of Unification on Midrange Systems

The vendor is merging its System i and p servers into one product line. But users have nothing to fear, it says. By Patrick Thibodeau

FIRST THERE was the AS/400, then the iSeries and eventually the System i — different names, but all for the same midrange computer line that IBM has been selling since 1988.

Now there's just an operating system — with the unlikely name of IBM i — and it will become part of a new server line that also supports Unix and Linux.

In effect, IBM is unifying its System i and System p servers. The company has been on that path for years, but it didn't confirm its plans until last week, when it announced its new Power Systems family of products.

GETTY IMAGES

The customers most affected by the change are System i users, many of whom still run their core business applications — often custom-built — on the venerable midrange platform. IBM said those users have nothing to fear because it remains fully committed to System i's operating system, which includes a built-in database, security and administration tools, as well as other integrated features.

The highly integrated nature of System i has helped cement the loyalty of its users, and their dedication to the machines explains why IBM decided to announce the unification plan at the annual conference of the Common user group in Nashville last week.

IBM tried to reassure System i users that they will be able to move to the new hardware seamlessly. Making the change "will not be at all disruptive," vowed Mark Shearer, vice president of marketing for IBM's business systems. He added that the current release of the midrange operating system — formerly called i5/OS, now IBM i — will run on Power Systems servers.

In recent years, some System i users have voiced concerns about IBM's long-term support for the midrange line and questioned whether it was spending enough money on marketing and developing new support among application vendors.

But Randy Dufault, Common's president, said the unified hardware may make it easier for users to make a business case for continuing to run IBM i. If they also use System p machines, their companies will now have only one hardware platform to support, said Dufault, who is also a consultant at MBS Technologies Inc., a Minneapolis-based software vendor and consulting firm.

"IBM is showing a complete and total future commitment to our members," Dufault said. He added that even with System i going away as a separate hardware line, an application developed for it decades ago will continue to operate on the Power Systems machines.

IBM's plan does have some potential pitfalls, though. Joe Clabby, an analyst at Clabby Analytics, said he thinks the continued market success of IBM i will depend on the company's ability to entice application developers to support the operating system. As long as the vendor can do that, IBM i has a strong future, Clabby said.

For IBM itself, the decision to unify the two hardware lines means that it doesn't have to invest research and development dollars in separate platforms and can instead focus more on its operating systems and applications. "This eliminates an expense for them," Clabby said.

Power Systems hardware, which supports IBM i as well as Red Hat Linux, SUSE Linux and IBM's AIX variant of Unix, is scheduled to start shipping on April 18. Dufault said he thinks the overall cost of running an IBM i server will still be less than the cost of using Linux because of the high level of integration within the midrange operating system. ■

On the Mark

HOT TRENDS ■ NEW PRODUCT NEWS ■ INDUSTRY BUZZ BY MARK HALL

MATTHEW FAULKNER

Turn PCs Into Antennas

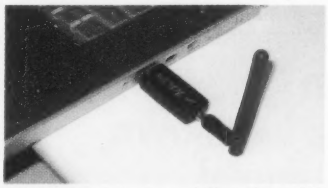
THOMAS AISENBRAY thinks the enclosures around your PCs and laptops can do more than contain their digital innards. They can also transmit signals. As the chief technology officer at Bellingham, Wash.-based Integral Technologies Inc., Aisenbray is the primary driver behind a patented process that he claims turns a special polymer matrix he calls Electriplast into a superconductor ideal for wireless communications. With it, he says, computer makers could eliminate copper- and silicon-based communications chip sets, saving costs and freeing up real estate on the motherboard. And start-up costs should be minimal, he contends, since the flexible Electriplast would fit easily into manufacturers' current production molds.

1984
The year Los Alamos National Labs showed that plastic is equivalent to metal as a conductor of electricity.

Aisenbray says his company is building prototypes and has inked a production deal with Jasper Rubber Products Inc. in Jasper, Ind. The U.S. military will receive the first shipments later this year, but Aisenbray isn't sure about commercial availability.

Find That Wi-Fi Interference

If your 2.4-GHz Wi-Fi networks have pesky interference problems, take a gander at the new Chanalyzer 3.0 software from MetaGeek LLC in Nampa, Idaho. The new version of the Windows software, paired with the company's Wi-Spy 2.4x USB-based antenna, can locate competing signals. According to Ryan Woodings, chief geek, the upgrade's Inspector feature adds flexible views of spectral amplitude over time. That way, you can record interference even during off hours so problems can be diagnosed even if you're not snooping the spectrum at the moment they occur. A new feature lets you quickly compare the signatures you capture with, say, those of a microwave oven or a cordless phone. MetaGeek has an online database of various wireless devices' sigs that can be used for quick diagnosis. In late summer, Woodings says, the company will ship a 5.4-GHz Wi-Spy antenna to capture signals in that band. The Chanalyzer 3.0 and Wi-Spy 2.4x software-hardware combo costs $399.



The Wi-Spy antenna and Chanalyzer 3.0 software include new features to detect more wireless network problems.

Cheap Talk Goes Global

Voice communication keeps getting cheaper, thanks to voice-over-IP technology. How does 2 cents per minute sound for international dialing? Almost makes it worth traveling overseas to make friends just so you can call them later.

That low-cost plan, MyGlobalTalk from i2Telecom International Inc. in Roswell, Ga., is now in beta. CEO Paul Arena says the beta is restricted to users of Windows Mobile 5.0 (and later) smart phones, but in the full rollout in mid-May, the company will deliver the same bargain-basement service to BlackBerry, iPhone and Symbian users. Even sweeter, there are no sign-up fees, he says. You merely download an SMS-based app to your handset and begin to babble away.

45M
Investment bank Piper Jaffray's estimate of iPhones to be sold in 2009.

Arena acknowledges that to make megabucks at 2 cents per minute, he'll need millions of customers afflicted with logorrhea. But another path to riches might be for-pay services, such as unified messaging. He sees Apple's new software development kit for the iPhone as an excellent way to build low-cost apps that appeal to business users. Ring up i2Telecom with your app ideas. It might be the last pricey call you make. ■

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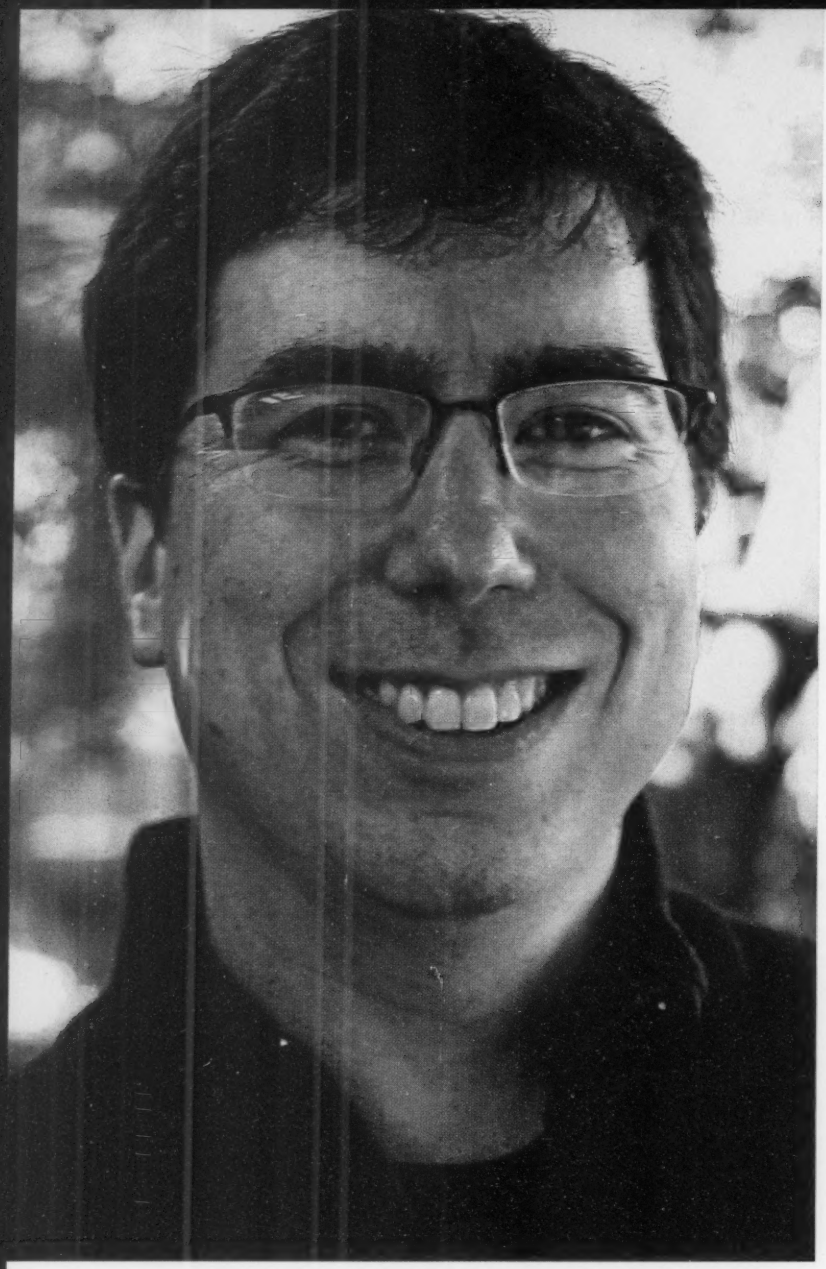

■ THE GRILL

Jonathan L. Zittrain

The **Internet champion** talks about **'generativity' vs. lockdown, nefarious filtering** and **social solutions** to security issues.

Dossier

Name: Jonathan L. Zittrain

Title: Holds the chair in Internet governance and regulation at Oxford University; a principal of the Oxford Internet Institute; the Jack N. and Lillian R. Berkman visiting professor for entrepreneurial legal studies at Harvard Law School; cofounder of Harvard's Berkman Center for Internet & Society

Favorite technology: The Slingbox. "It works beautifully for trans-Atlantic television."

Technology pet peeves: "BlackBerries and, in the U.K., all-in-one washer-dryers that don't really dry."

Ambitions: Supreme Court justice or surgeon general

Epitaph of choice: "Fatal error: [A]bort, [R]etry, [F]ail?"

Jonathan L. Zittrain is co-director of StopBadware.org, a "neighborhood watch" campaign aimed at fighting malicious software. He is also a principal investigator of the OpenNet Initiative, a multiuniversity effort to investigate, expose and analyze Internet filtering and surveillance practices. Zittrain is co-author of Access Denied: The Practice and Policy of Global Internet Filtering *(MIT Press, 2008) and author of the just-published book,* The Future of the Internet and How to Stop It *(Yale University Press, 2008).*

What is "generativity" in IT, and why is it at risk? It's the ability to use a platform to build new things and share them without the permission or intervention of the maker of the platform. Many of the things we now see as central to the Internet revolution came about because some geeky kids did something whimsical, and then it turned out to be central. A generative system allows many ideas to be tried with low investment and low risk.

But the qualities that make generative systems good make them susceptible to abuse when they become successful. Then, the natural reaction of many people is to retreat. So there is a

Continued on page 20

ALTERNATIVE THINKING ABOUT POWER AND COOLING:

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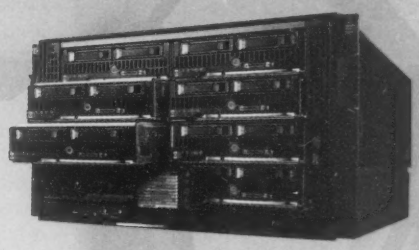

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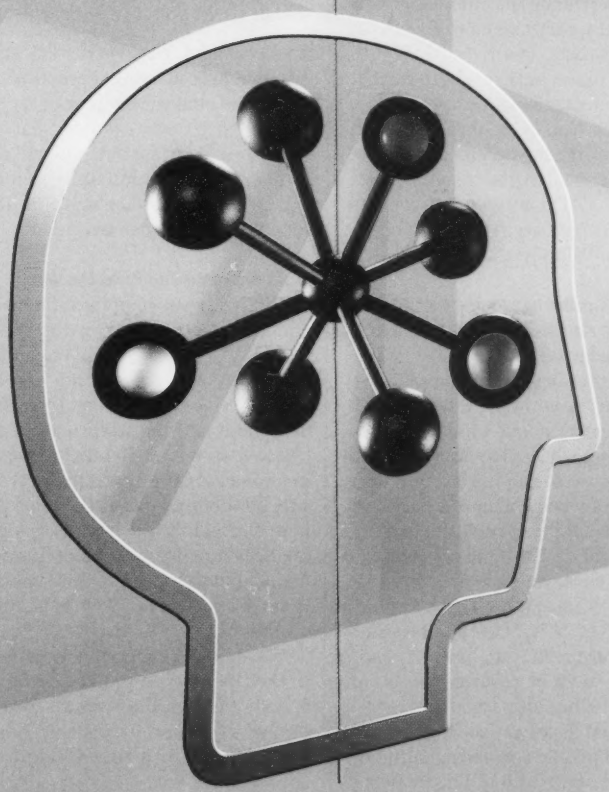

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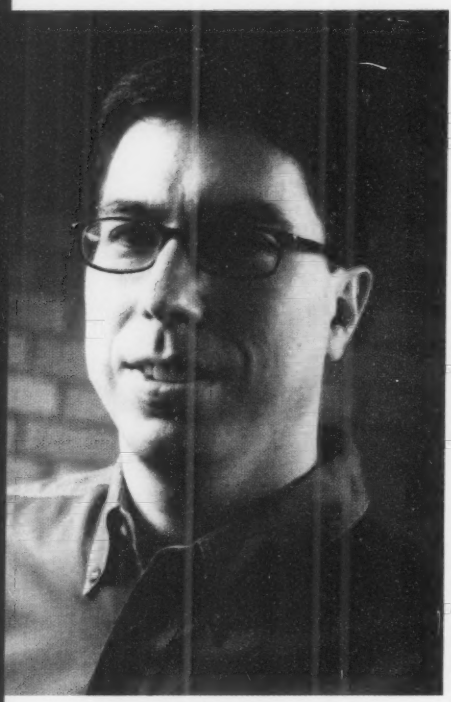

"We are approaching the worst of both worlds with many ISPs.

Continued from page 18

migration to "locked down" information appliances, like the iPod, that are not programmable by third parties. And you are increasingly seeing the PC itself locked down in places like offices and schools.

Isn't there a place for generative systems and locked-down appliances? I like the idea of a diverse ecosystem. I am not against the information appliance that distills the best things that the generative environment produces. I like my TiVo. But I'm nervous that if we lose the generative core, we will be back to a situation where innovation is mediated through a small number of firms.

Won't there always be plenty of bright kids developing new generative things? Young nerds today are not programming for Windows or the Mac or much for Linux. They are programming for Facebook, Google mashups and so on. I see a migration of energy to these. I call these platforms "contingently generative." They are open to third parties, but if someone complains that it hurts them, they can go to Facebook, and it shuts them down. And Facebook even reserves the right to start charging retroactively for successful applications. You don't have to sue the nerds to enforce it; you just cut their application off. Can you imagine Bill Gates saying, "Oh, by the way, you owe me for that application you have been running on Windows?"

You say Wikipedia has somehow escaped abuse while remaining generative. Can its concepts be broadly applied? Yes. Wikipedia really is an unlikely success. The success is, you start off small and you don't worry about vandalism and abuse until it starts happening. So with Wikipedia, we see an initial round of success followed by a bit of a backlash. So it had to adopt a new strategy to deal with vandalism. One concept we could apply elsewhere is not thinking that a bad thing is proof that a system is wrong. Yes, Wikipedia can be vandalized; the question is, how quickly and easily can it be reverted [to its correct state]? The software is designed to make that very easy, as long as the number of people correcting outnumbers the people ruining. That makes it a sort of democratic technology.

So Wikipedia moves the problem up from the software layer into the user layer? Exactly. Wikipedia has realized that this type of damage is a social problem that calls for social solutions. It polices itself according to an ethical code that encourages users to do the right thing rather than the required thing. I would like to see other ways for people to share their experiences with other people on the Net so they can help each other.

That sounds like your "Herdict," or "verdict from the herd," project. That's a project of Harvard and Oxford universities to develop new code, downloadable by people at large, that relays the basic vital signs of their PCs to others also running the code. You'll be able to see how your PC compares to others like it. It might tell you your PC is crashing a lot more than other PCs that have roughly the same configuration [or that] you are running some [potentially malicious] code that others are not running.

Would the herd, then, via Herdict, advise you what to do about your problem? That's the community part of StopBadware.org that we want to have developed. That's where we will rely on people in the community joining up and getting obsessed about this. It's the social layer that sits on top.

What else could go on at the social layer? We are developing a [social and technical system] for Internet filtering. As you surf, if you encounter a site you can't get to, you click on a button that says you can't get there from here, [and] we can start to aggregate [these responses]. So maybe everyone in China says they can't get to this site, but nobody else is having a problem. Ultimately, the hope is to have not only a real-time map of filtering in China, but to have it refined enough that we can find network neutrality violations.

We are working on that now, as part of the OpenNet Initiative. We have spent several million dollars over several years on a study, out this month, on filtering in 50 [countries] around the world.

How could ISPs help? We are approaching the worst of both worlds with many ISPs. They are inching toward all sorts of violations of network neutrality. And yet when a machine on the network is compromised and starts sending out tons of spam, it's very rare you get action from the ISP, which could quarantine the machine. The ISP would rather collect the monthly fee for the machine, and who cares what it's doing?

— *Interview by* **Gary Anthes**

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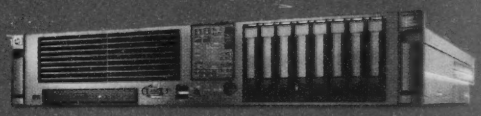

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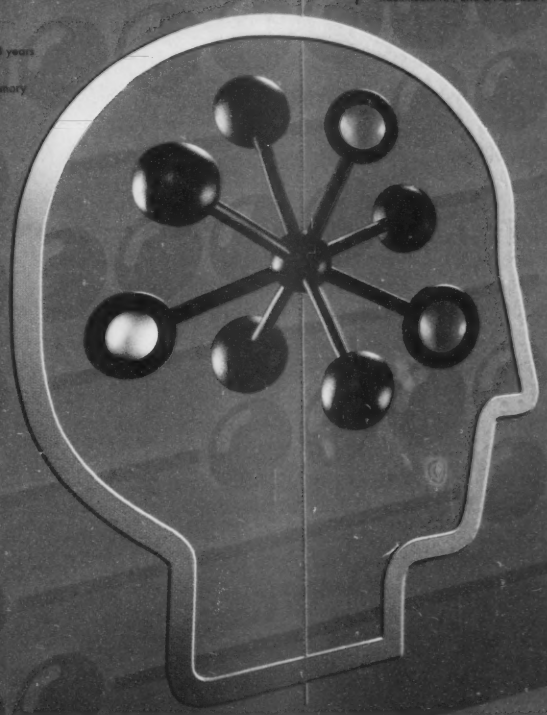

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*Based on IDC Worldwide Quarterly Server Tracker, February 2007. In calendar 4Q07, IDC reported worldwide HP ProLiant server shipments of 881,443 units, well ahead of Dell PowerEdge's 499,715 units at #2. IDC also reported ProLiant factory revenue at $2,743 million vs. $1,580 million for Dell's PowerEdge family. Prices shown are HP Direct prices; reseller and retail prices may vary. Prices shown are subject to change and do not include applicable state and local taxes or shipping to recipient's address. Offers cannot be combined with any other offer or discount and are good while supplies last. All featured offers available in U.S. only. Savings based on HP published list price of configure-to-order equivalent ($3945 - $1420 instant savings = SmartBuy price of $2,525). †Financing available through Hewlett-Packard Financial Services Company (HPFS) to qualified commercial customers in the U.S. and subject to credit approval and execution of standard documentation. Prices shown are based on a lease of 48 months in terms with a fair market value purchase option at the end of the term. Rates based on an original transaction size between $3,000 and $25,000. Other rates apply for other terms and transaction sizes. Financing available on transactions greater than $349 through July 31, 2008. HPFS reserves the right to change or cancel these programs at any time without notice. AMD, the AMD Arrow logo, AMD Opteron, and combinations thereof are trademarks of Advanced Micro Devices, Inc. © 2008 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice.

■ OPINION

Thornton A. May

The Good-News Recession and IT

THE U.S. macroeconomy is slowing down. You and I know this, though economists and politicians are still on the wrong side of the decimal point, debating the exact starting date of the recession.

Unwilling to wait for the result of that bloviating, the IT Leadership Academy convened a group of IT elders who have survived previous economic slowdowns, and a second group made up of extremely bright MBA students at Ohio State University. We asked them to discuss two questions: "Does a slowing macroeconomic environment mandate IT spending cuts?" and "What lessons do experience and the business canon offer IT leaders in these turbulent times?"

First, we hunted down some facts:

The U.S. is not the only economic game going on: Emerging countries account for half of the world's economy, and many of their economies are experiencing growth rates of 6% to 7%. So a severe slowdown in the most developed countries would still leave the world with an annual growth rate of around 4%, according to the World Economic Forum.

The U.S. economy is not homogeneous: There are pockets of prosperity across the country. For example, farmers are enjoying record crop prices, thanks to the surge in demand for ethanol. Retirees with good portfolios, who constitute a growing percentage of the total population, will continue to have interest and investment income to spend no matter what happens. The high end of the indulgences market — services such as spas, cigar bars and children's clothing boutiques — continue to show sales growth.

There are bright spots: The weak dollar is helping exporters and retailers that cater to foreign tourists. Unemployment remains low at 4.8%. Outside of Wall Street, corporate balance sheets remain remarkably strong. The Fed appears to have mastered the "three T's" of economic stimulus — measures that are timely, targeted and temporary to improve our nation's long-run economic performance, according to The Brookings Institution's Metropolitan Policy Program.

■ The challenge the economy poses is not to do anything foolish.

Given these facts, both the seasoned executives and the promising students concluded that the challenge is not to do anything foolish.

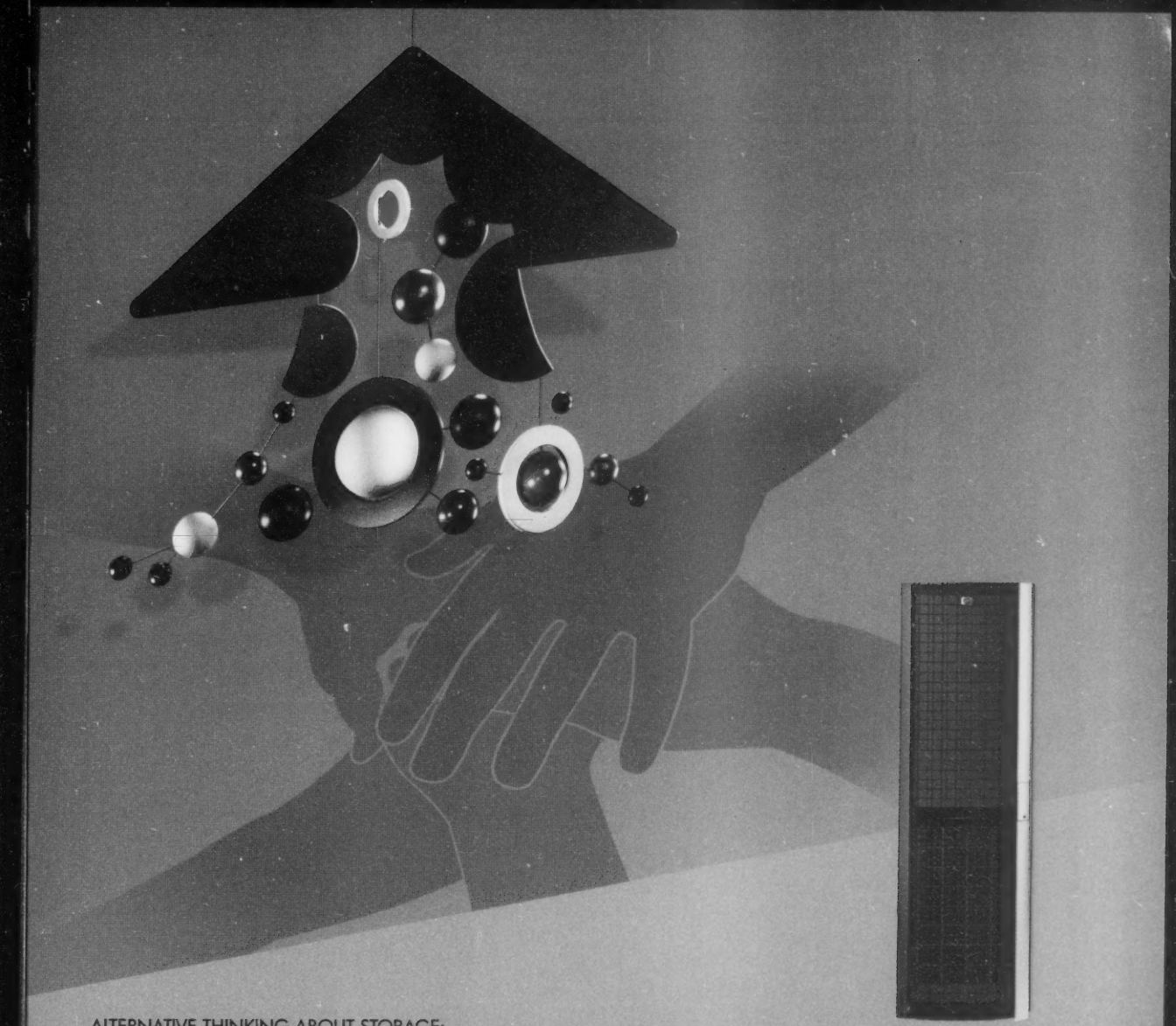
Historically, conventional thinking about how to respond to a recession was to reduce spending, hunker down and wait for good times to return. This is no longer good advice. In fact, such behavior would be foolish. Well-managed companies and IT shops should look at the recession as an opportunity.

IT has always been a master of doing more with less. A slowing macroeconomic environment is, believe it or not, a great time to be in IT — for virtualization and data center consolidation, and for customer segmentation and business intelligence projects. Hard times also bring out the best in vendors that had previously focused on selling whatever they had in the truck. They become more solicitous, more willing to listen and more accommodating.

Strategically astute companies know that an economic dip is the best time to make innovative IT investments that can create differentiation. If those investments are deployed when competitors are retrenching, they can grow the bottom line.

So stop waiting for the politicians and economists to make up their minds. It's time to get busy! ■

Thornton A. May *is a longtime industry observer, management consultant and commentator. You can contact him at thorntonamay@aol.com.*



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PROGRAMMER
PRODUCT ARCHITECT
FIG.1. TODAY
FIG. 2. TOMORROW

WHAT'S IN A NAME? EVERYTHING!

New IT titles portend a revolution in IT roles. **By Julia King**

THINK YOU WANT TO BE A CIO OR CTO? Think again. What you might really want to be is a chief delivery officer or chief process officer.

Software developers eager to advance should consider looking for product architect roles. Network and security administrators may want to start looking for positions as electronic privacy specialists. If business analytics is your area of expertise, your next promotion might be to the job of information architect.

And one more thing: Don't expect to be part of an IT department. As a 21st century technology professional, your future — and most likely your desk — will be on the business side, and your title will likely be scrubbed of any hint of computers, databases, software or data networks.

"We'll see new and made-up titles come about," predicts David McCue, CIO at Computer Sciences Corp. (CSC), a global consulting, systems integration and outsourcing company. "I've already seen new cards and new titles like guru of X, advocate for Y and ombudsman of Z" he says. "To me, that signals the beginning step in a maturity cycle. It doesn't feel right to call [a changing role] the same thing, so you make something up."

CSC is also changing where and how it places some of its IT professionals within companies. "The traditional IT department is beginning to morph into a series of individuals who are comfortable using technology and who know its inherent characteristics," McCue says. "They are becoming embedded into the businesses as technology mentors. These are the people on the business development team

ILLUSTRATIONS BY RHONDA MULDER

WHAT'S IN; WHAT'S OUT

"We'll maintain traditional network-analyst and storage and server managers.

But where titles are going is toward solutions, process and analytics, and combining an innovation and an R&D mentality.

You'll start to see titles that reflect value delivery and accountability. Examples are 'delivery manager' and 'chief delivery officer.'

MIKE CARLSON, CIO, XCEL ENERGY

"We'll see titles with more of a focus on information – similar to library titles. Titles about tagging and cataloging information.

We'll see fewer software architects and more information architects.

For the CIO, I think the title fits better today than 10 years ago, with the focus on information, not technology.

ANTHONY HILL, CIO, GOLDEN GATE UNIVERSITY

who create a pretty or sticky Web site."

Jonathan Thatcher, director of business integration at the Chicago-based Computing Technology Industry Association (CompTIA), says he has already begun to see changes in IT titles that downplay technologies and focus on business attributes. "Wireless technicians, for example, are turning into mobility support staff, and tech support is called high-availability support," he notes.

A BACKGROUND ROLE

Key factors driving this evolution include the commoditization of technology and a growing base of new workers who are technologically savvy and accustomed to having technology play a background role in just about everything they do.

These workers and the industries they're in have less of a need for computer programmers and help desk analysts, either because they know how to program themselves or the help they need is built right into the software they're using to do their jobs.

"IT is no longer a subset specialty. IT is integrated into whatever work you're trying to get done," says Patti Dodgen, vice president at Mosaica Partners LLC, an IT consultancy specializing in the health care industry. In health care, for example, "there is a huge drive to fill positions with someone who has a foot in both the medical world and the technology world," Dodgen says.

No one knows exactly what to call these positions, she says, but they definitely include more than pure technical skills. "If you have been a heads-down programmer, you're at a terrible disadvantage" in trying to secure one of these new roles, says Dodgen. "But if you've been on an application development team and worked with a business partner to facilitate their goals, you have a big leg up."

"The IT department is being disintermediated, but in a good way. It is being pushed farther up the food chain," says Kamud Kalia, CIO at Direct Energy, an $8 billion integrated energy services company. "A lot of stuff IT would have done, they no longer need to do. The problems have been fixed or the technology has been commoditized."

Ten years ago, for example, "you'd put smart guys on the project of joining applications together," Kalia says. "Now, middleware has obviated the need for that. You want smart people solving business problems, not technical ones."

Other companies, such as Animas Corp., a Johnson & Johnson unit, are eliminating traditional IT roles and titles, such as systems

Continued on page 28

STILL ROOM FOR GEEKS

TO BE SURE, there are still plenty of traditional IT titles and jobs to be had across all industries. Virtually all of the CIOs, analysts, IT job experts and career advisers interviewed for this story acknowledge that IT is at the very beginning of this trend.

"What we're describing is still very aspirational," says Vinnie Mirchandani, founder of Deal Architect Inc. and a former technology industry analyst and outsourcing executive. "There is still a viable and clear career path for techies."

CIOs say that as long as ease of use remains high on the IT priority list, there will be room for the most technical of techies in IT. The reason: Simpler-to-use technology still involves a lot of complexity.

"IT is really moving in two directions at once," observes Lynn Vogel, CIO at M.D. Anderson Cancer Center. "We're paying much more attention to the user experience, but all of that makes it more complicated on the back end."

As a result, Vogel says, the center "will continue to invest in deeper and deeper technical skills. Technology is getting easier to use, but to make it easier to use, we have to be a lot smarter in IT."

At Direct Energy, CIO Kamud Kalia says that he still has "a bias toward IT guys who are classically trained, but have the mental agility to take on other tasks." Technical work will always need to be done, even if you opt to outsource the bulk of your IT operations, he observes.

"If you don't have someone technical leading and managing that, you don't get a good following, because technical people don't respect nontechnical people," Kalia says.

"The other thing you don't have is a good BS detector," he adds. "So I always look for not just a slightly technical background, but a deep technical background. Even in junior people, I want a deep technical background, and then I expose them to other things in the company."

– JULIA KING

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COMPUTERWORLD
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WHAT'S IN; WHAT'S OUT

"We are bringing in new career ladders, and we're adding new rungs to existing career ladders.

Before, [as an IT professional] you were an application support person and then a senior application support person and so on. Now, we're getting into the equivalent of a partner in a consulting firm. [You might be] called a consultative application specialist.

We've also added several [information] architects. They're focused on the overall design of how things fit together. They're responsible for taking the design and pushing it through the technical processes. The architect positions are fairly well compensated – in some cases, [better] compensated than our management positions.

LYNN VOGEL, CIO, M.D. ANDERSON CANCER CENTER

Continued from page 26

analysts and administrators, as they outsource data centers or contract for software as a service.

"Outsourcing, globalization and the cost reduction for WAN technology all work to eliminate the need for systems administrators, help desk people or developers," says Animas CTO Bogdan Butoi. "We don't want developers on our staff for all of these technologies. We pretty much have kept only business-savvy people who we expect to be partners in each department and to come up with solutions.

"I don't know if at some point we will be a [completely] distributed IT department or if we'll stay as a central IT department," he adds. "Right now, we're still an IT department, but we have dedicated IT people for each department."

For instance, IT conducts focus groups with physicians, patients and other key stakeholders about new products and software for the glucose pumps, insulin meters and other diabetes-related products that Animas develops. Another telling indicator of IT's deeply embedded business role: "IT is measured on how many original products come from us without anybody asking for them. We're being measured on how we're pushing innovation," Butoi says.

"Wireless technicians are turning into mobility support staff and tech support is called high-availability support. **– Jonathan Thatcher, director of business integration, CompTIA**

FOSTERING INNOVATION

Xcel Energy Inc. is experimenting with making some traditional IT roles and responsibilities somewhat unstructured so as not to inhibit innovation.

"We're using our business analytics group to start this," explains Mike Carlson, CIO at the $10 billion electric power and natural gas utility. "We're looking for people who are just insatiably curious about getting an answer to a problem. It's almost a hacker mentality. These are people who keep churning [data] and looking for relationships and data that supports hypotheses."

The company puts these workers in an undefined role and gives them a business issue to work on. "Maybe the CFO says there should be more money in the checkbook and asks why there isn't," Carlson says. "They then tear apart the data and build it back up to come up with an answer."

The primary factor behind this strategy is an overwhelming volume of data. "We have tons and tons of data, and we have to turn it into a useful product," Carlson says. "Putting data in a business context is absolutely key."

A college degree is not necessarily required to fill these roles, Carlson says. It's the curiosity that counts. And finding the right people hasn't been easy. Now in its third year, Xcel's IT hiring and organizational strategy has about a 60% success rate. However, "some people have been terribly unhappy" in the less-structured environment, he acknowledges.

Xcel has sought the help of an industrial psychologist to help identify potential employees with the curiosity and drive to trawl through data and uncover information that could be used to cut costs, improve efficiency and generate revenue.

Although job titles for all of these emerging roles have yet to be standardized, the

overall career focus seems pretty clear: It's all about business. The one trend that emerging IT titles and roles seem designed to reflect is technology professionals' inextricable connection to the products and/or services their companies provide and not to specific technologies such as Java or WANs.

"You'll see titles like 'solutions architect' and 'product architect' that convey involvement in providing the product or service to a purchaser, as opposed to titles like 'network engineer,' " says CSC's McCue.

This is because "the notion of separation between IT and operations has been totally blurred," says TNS North America Inc. CIO Enzo Micali, who in January acquired the additional role of executive vice president of operations at the 14,000-person global custom research company.

TNS has no computer programmers, for example. "Everyone is either an architect or engineer — someone who has to have deep technological capabilities to automate a business process that they know just as deeply," Micali says.

At Direct Energy, job titles — especially titles in the 350-person IT organization — are purposely kept vague. "We keep the titles generic, and people can apply descriptive labels to what they do," says Kalia.

"I want them to think of themselves as people who work for this company, not people who work for this company's IT department," he says. "We have an energy supply business to manage. That's our business, and we want to do it as efficiently as possible. It doesn't really matter what the IT job is."

According to Anthony Hill, CIO at Golden Gate University, which has outsourced virtually all of its technology operations, "IT is being driven out of the business of managing technology. Traditional IT has been about data centers, servers, software development, software implementation, and the maintenance and management of all of that."

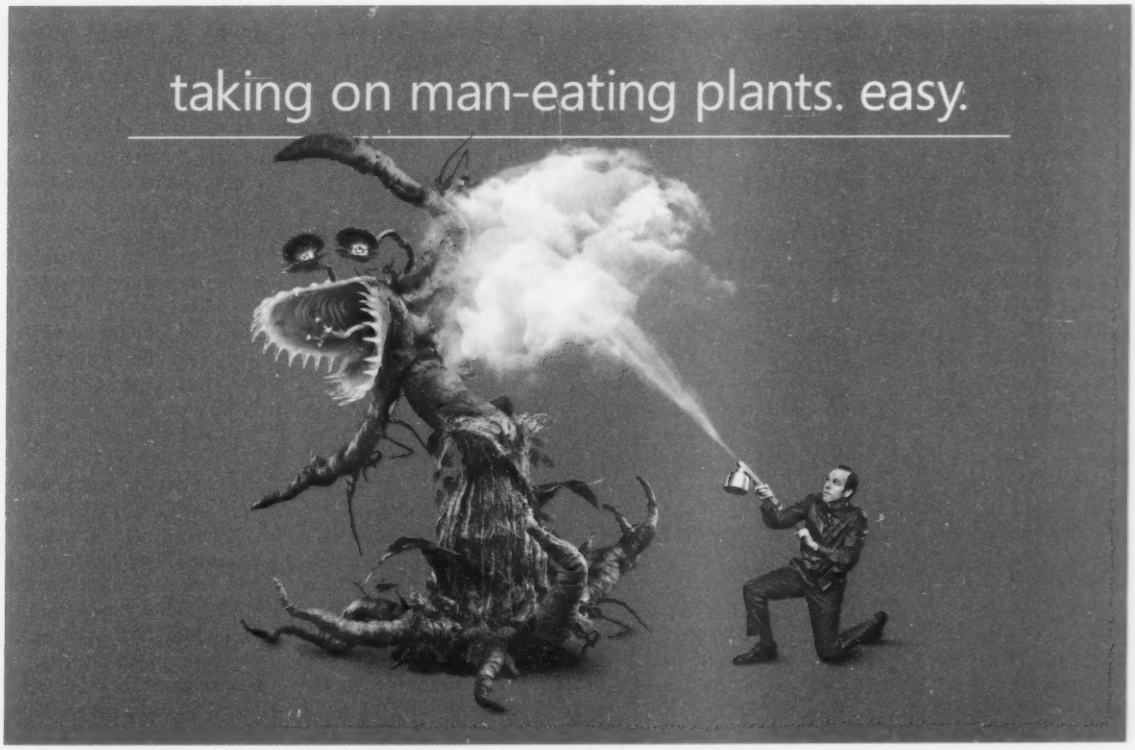
Not any longer.

"IT will focus more on analysis and be more involved in the early life-cycle tasks [of developing products and services] and less on technology delivery," Hill says. "IT will focus more on simulation, content and information architecture."

The bottom line: "Moving away from technology management doesn't take IT out of the picture," Hill says. "It changes what IT does." ■

"Business intelligence, online presence, effective information sources, mobility and superior infrastructure are already being used as competitive advantages, but this is true for only a few industries. I think IT professionals will be filling this gap as industries realize the potential to compete using technology, and their titles will have to reflect that. The operative words are *innovation* and *delivery* – both easier said than done.

YURI AGUIAR, CTO, OGILVY WORLDWIDE



Presence, Context and Location

Mobile social networking will expand to include presence, context and location, says Randy Kerr, co-founder of Twango, a media-sharing site with social networking features that Nokia acquired last August and renamed Share. Here's what those terms mean:

PRESENCE: This tells you whether the people on your contacts list are available. A simple version of presence has long been part of instant messaging programs.

CONTEXT: Building on presence, this tells you not only whether people are available, but also in what context they are available. For example, someone may be available, but only to specific people or only after you arrive at a certain location.

Or you could receive calls only from certain people in certain circumstances, and when your location or other circumstances change, you could receive calls from another group of people.

LOCATION: With the addition of GPS and mapping technologies, your mobile device will know where you and others in your network are. Kerr foresees "in-house mashups" of services that could do things like provide GPS-based directions to a location shown in a photo seen on Share.

– DAVID DeJEAN

© NOKIA

Social Networking Gets Moving

Mobile applications may add new richness for business and personal users. By David DeJean

ACCORDING to most studies, Nokia Corp. sells 40% of all mobile phones worldwide. So it may seem unusual that it's pouring cash into a social networking Web site, but that's what it's doing with Ovi, a site the Finnish mobile equipment vendor launched earlier this year.

According to Randy Kerr, Ovi represents how mobility will improve social networking. Kerr has an insider's view — he is a co-founder of Twango, a media-sharing site Nokia acquired last August that has social networking features. Twango has been renamed Share and is now the first functioning piece of Ovi. Kerr and his four fellow Twango founders are now Nokia employees.

According to Kerr, mixing mobility and a variety of socially oriented services will significantly change the nature of social networking, including how it's used in business. He and Nokia see a brave new world of social networking on the horizon.

Nokia has been on something of a buying spree in the past year, and Kerr says that the company's acquisitions point to the changes we can expect in mobile social networking. In addition to Twango, Nokia acquisitions include Loudeye, a music download service; Gate5, a developer of navigation software; and Enpocket, which has a mobile ad platform.

In its biggest acquisition, an $8.1 billion deal, Nokia bought Navteq, a major player in digital mapping and GPS technology. In another major deal, the company acquired Avvenu, which has software that provides mobile access to PC-based files. And in January, Nokia acquired Trolltech, the developer of the Linux-based Qt software platform that's used for mobile and

desktop applications such as Google Earth and Skype.

Also on the list is N-Gage, an older Nokia project that started out as hybrid game/cell phone hardware but has morphed into a software platform for gaming on smart phones.

PUTTING IT TOGETHER

Ovi will be the centralized interface, or portal, for all of these seemingly disparate services and more to come, according to Kerr. Although most will include social networking, this vision isn't about putting Facebook-style social networking on mobile phones. "It's not social networking just for the sake of social networking," he says.

Rather, Kerr says, the future of social networking will be about the content — and context — of the social interactions. The result will make social networking more useful and engaging for both personal and business users.

"By socializing, getting the applications out of the PC and into context, you put the focus back on person-to-person contact," he says.

In this evolving vision of social networking, different and improved types of social interactions can grow naturally from this new type of context-aware content, Kerr says.

At the very least, mobility adds immediacy to social networking because social interactions will occur in real time more frequently. For instance, rather than waiting to get back to their desktop PCs, users will be able to send updates to their business or personal networks from their mobile devices immediately.

A more complex example of this type of real-time mobile social networking is using local search capabilities to find a restaurant in an unfamiliar city and then using GPS technology to find nearby business contacts to join you. Kerr calls this "geo-social" networking.

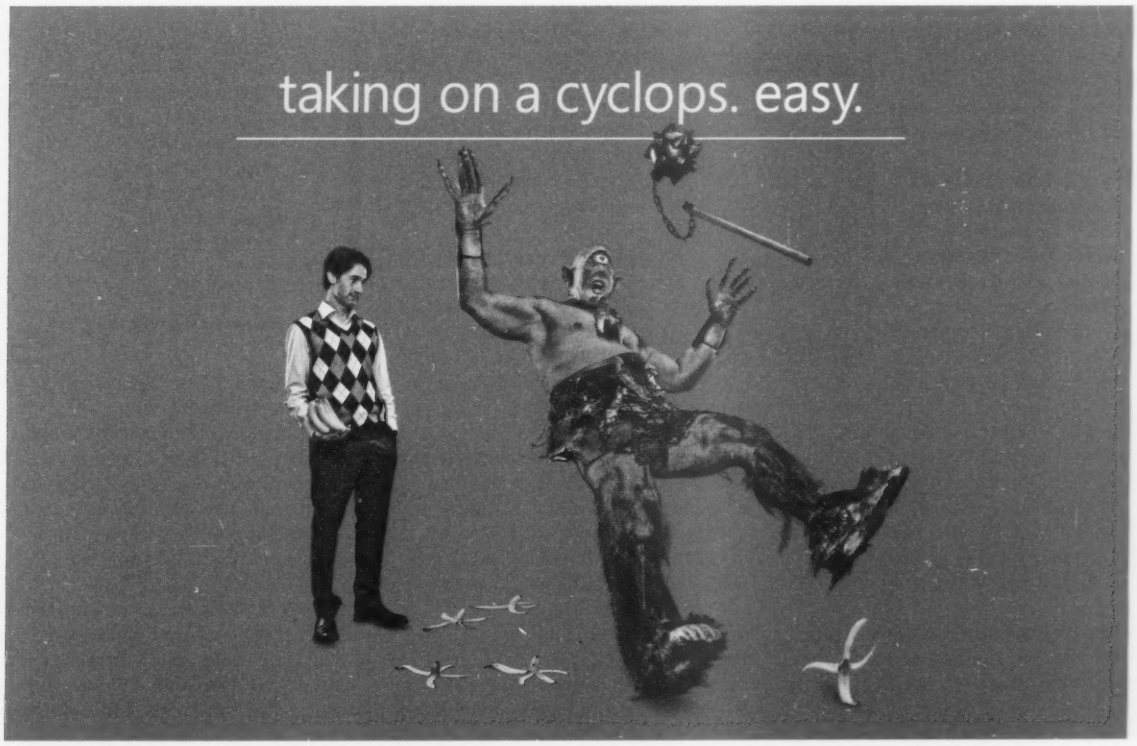
Because this new, intrinsically mobile social networking will grow naturally from being mobile, it will feel natural to many users, Kerr says. He adds that Nokia and other phone vendors will be creating mobile devices that work not just on cellular networks, but also on Wi-Fi and WiMax networks. That will significantly increase the users' availability — and also their ability to connect with others.

For now, Ovi is a being developed as a consumer service, but business uses are inevitable, Kerr says. He notes, for instance, that his Twango service originally had no enterprise focus, but that changed quickly.

"We found people were using it to extend their business contexts as well as their personal lives," he says. "Contractors were sharing photos of progress via cell phones with customers on vacation, for instance. It also was being used for large file transfers that e-mail just wasn't that reliable about handling."

Kerr says he has come to think of mobile social networking as a "long-tail business service," meaning that it will grow naturally as a business tool as the divisions between users' personal and work lives continue to blur. ■

DeJean *is a freelancer who began writing about computers after Cobol but before C++. Read his blog at* Computerworld.com.



Deconstructing Google

A self-described 'Google stalker' examines the secrets to its success and explains how you can emulate it.

Educators used to follow the auto industry because that's where all the lessons came from, says **Bala Iyer**. *Then it was Microsoft. Now it's Google. In this month's* Harvard Business Review, *Iyer, an associate professor of technology operations and information management at Babson College, looked deep into Google's DNA to discern what makes it an innovation machine. Iyer talked with Kathleen Melymuka about what he and co-author Thomas H. Davenport discovered.*

BALA IYER

Let's talk about some of the key attributes that you say contribute to Google's success. The first is "strategic patience." What do you mean by that? Look at their mission statement: "to organize the world's information and make it universally accessible and useful." This requires a long period to execute, and they're not kidding. CEO Eric Schmidt says it's probably going to take 300 years. When a company has such a powerful long-term mission, that sets it apart from the others. They go in knowing they're in for the long haul. Every action they take, you can see that.

In these days where quarterly results are everything, how can other companies emulate this? Google won't play by those rules. Google changes the rules by this mission statement. They can take actions they feel are good for the long term. Google won't even give [Wall Street] guidance for their quarterly results.

This is a basic thing in business: You want to make sure you have a powerful mission statement. You can give people a lot of freedom to do what they want to do and be productive and innovative when you have a mission statement like this and allow people the freedom to operate within it. Companies do try, but sometimes the mission seems like it's separate from the company.

How does Google's infrastructure support innovation? Everybody thinks that when a company is based on the Internet, you [get a] free ride on the Internet's infrastructure. But this company put billions of dollars into building things on top of the Internet. Google has its own operating system that works on top of the Internet and is based on Linux. It customizes the Internet to its advantage.

For example, Google deals with huge amounts of data. Data centers are very important to them. They need to be able to add them as necessary. When Google plugs in a data center, they can make it operational within eight hours, which is a phenomenal capability, but they have it because they made this investment. When they introduce new products and services, no one questions whether their infrastructure can support it.

I imagine this is something almost impossible to copy. The lesson is not about building another billion-dollar infrastructure, but about how much you could customize to your own advantage. You could still layer your own system on top of the available public infrastructure. Isn't that what Salesforce.com is doing? Amazon's cloud, eBay's infrastructure — that's what it is. The platform should be built on top of the available Internet. The idea is to put your own secret sauce on top of it to support your ecosystem.

This platform on top of the Internet even supports Google's product development, because they can test-drive products on their own infrastructure and can allow third parties to write products, which we're now calling mashups.

Let's talk about those. Stacks have always been a big part of our industry. And the value is migrating up the stack. These guys are creating higher value. An example is Housingmaps.com. Somebody thought it would be a good idea to com-

Google's Innovation Ecosystem

CONTENT PROVIDERS
(Media companies and individuals)
- Create information.
- Stimulate user interest.
- Provide a delivery mechanism for targeted ads.

ADVERTISERS
(1 million+ companies and individuals)
- Deliver relevant ad content to search-identified users.
- Generate a revenue stream for Google.
- Help monetize innovators' new offerings.

USERS
(132 million unique visitors per day as of November 2007)
- Search for information and reveal interests.
- Consume targeted advertising.
- Test and validate innovations.
- Contribute ideas for improvements.
- Use new products.

INNOVATORS
(Mashup creators, software vendors, Google engineers, the open-source community)
- Make up a diverse product-development network.
- Develop new offerings to keep users engaged.
- Generate revenue for themselves and Google.
- Extend the value of Google tools and technology.

– *Adapted from the* Harvard Business Review

bine Craigslist and Google Maps to look at properties for rent. You get permission from Google, and that's a mashup.

When you build, you have to pick a platform, and each has own API and languages and so on. If I'm an independent software developer, what languages should I be learning today? Google's APIs, Amazon's, eBay's, Salesforce.com's. I should keep track of the number of mashups being developed on these platforms so I can learn these APIs and build my own mashups that run on them. That is a good career path. You've got to watch the evolution of these platform companies and see which are the next operating systems, if you will.

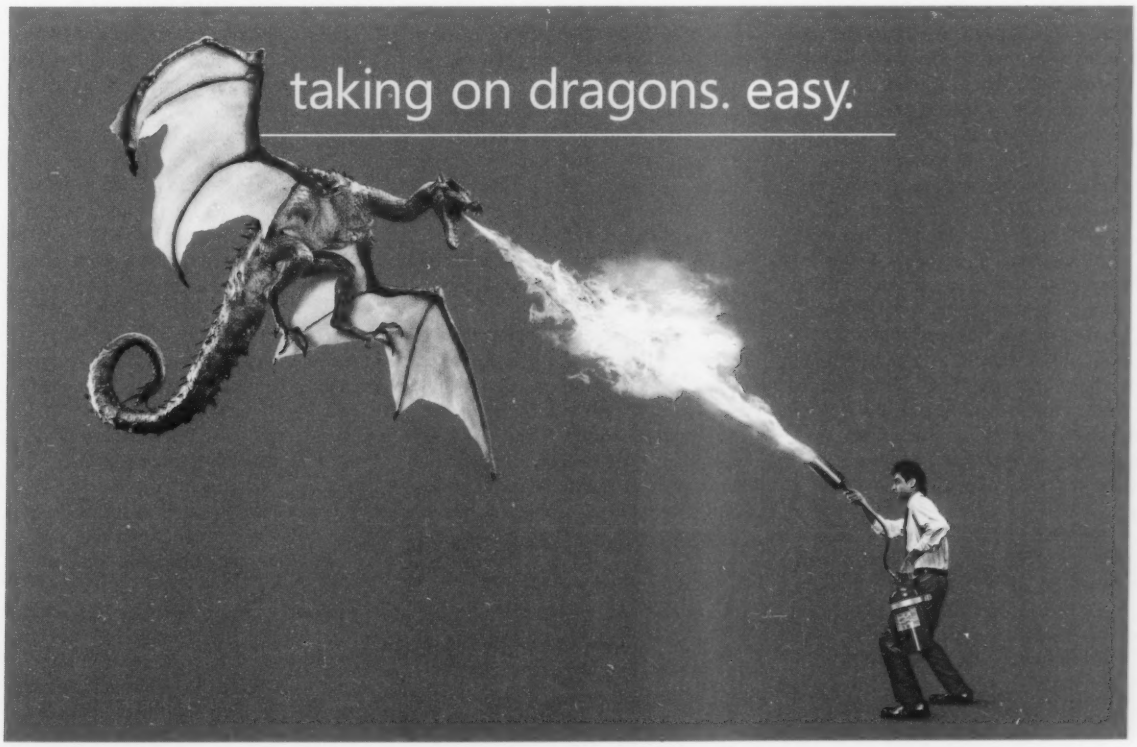
You write that innovation is literally built into job descriptions at Google. How does that work? Managers are required to spend 70% of their time on core business, 20% on related but different projects, and 10% on anything else. [Technical employees spend 80% of their time on core business and 20% on projects of their own choosing.] It doesn't have to be on a daily basis; they can chunk it or spread it out.

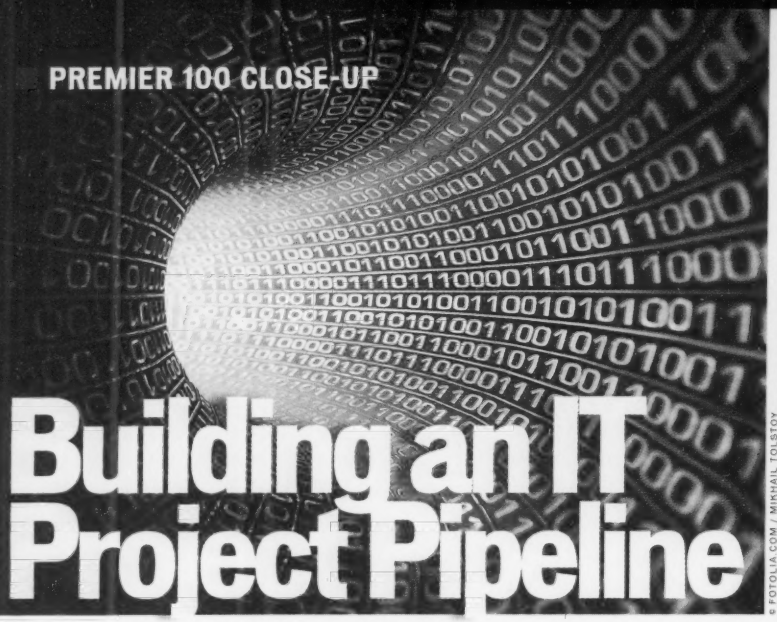
Sounds good, but if you don't track it, it's just a meaningless statement. But these folks track it. That 20% time has produced phenomenal products, including Gmail, AdSense and Google News. When you have creative people and you make this part of the job description, it's a great fit.

That would seem to be something any company can do, if they commit to it. Every company should do it. You may think it's goofing off, but that's where the best ideas come from: time to sit down and actually think. People are so caught up in delivery that we don't have think time. Everybody who wants to add value knows it comes from our free time.

Next, Google cultivates a taste for failure and chaos. How so? Failure is not considered to be a bad thing. They encourage people to make new mistakes. If people are not feeling stretched, they're not trying hard enough. In this business where innovation is happening on a day-to-day basis, unless you push the envelope, you're not going to be leading. There's a story about how a senior executive made a big mistake that cost several million dollars, but [Google co-founder] Larry Page told her he was happy she made the mistake. Because if they're not making mistakes, they're not taking enough risks. They would rather try and fail than sit back and say, "What if we had . . . ?"

And finally, Google uses data to vet inspiration. Is that backing away a little from failure and chaos? We didn't want readers to feel that Google is totally chaotic and there are no processes in place. Actually, they have very good processes. They listen to ideas. Ideas get vetted on an internal discussion board. Once ideas come through, people get to present them to the top team — 15 minutes per idea. And they don't care about what you think; they want data to back it up. So first, you alpha-test your product, find out what users are telling you, and then you present that. They're very brutal internally, and a lot of ideas get killed. But then you feel confident that the right ideas are being pushed up. ■





Building an IT Project Pipeline

© FOTOLIA.COM / MIKHAIL TOLSTOY

Long-range planning helps a Hess Corp. IT unit to partner more effectively with its businesses. By Thomas Hoffman

WHEN JEFF STEINHORN joined Hess Corp. as CIO of its marketing and refining division in the summer of 2006, he discovered within the first two months of his tenure that the IT organization had historically taken a short-term approach to project planning.

That approach did help the IT group to determine the equipment it would need to buy and the personnel it would require to support those near-term initiatives. But project plans focused on the separate needs of each business division, says Steinhorn, so there wasn't a comprehensive evaluation of how each project might affect the overall IT infrastructure. And it hadn't become clear how Hess' IT projects fit into its longer-term business objectives as the company diversified from its roots in petroleum and expanded into natural gas and electricity over the past decade.

"It became pretty clear that we needed to lay out a long-term strategy that would allow us to figure out how IT could support our businesses' strategies over the next five years," says Steinhorn, who was previously CIO at Linens 'n Things Inc. and was recently promoted to corporate CIO at Hess.

The situation that Steinhorn walked into when he joined Hess is far from unique. "The bulk of CIOs are in a predicament where they come into an [IT] environment that doesn't have a long-range plan," says Bobby Cameron, an analyst at Forrester Research Inc.

Prior to Steinhorn's arrival, business managers in Hess' marketing and refining division had given the IT organization decent marks for the quality of its work and for getting projects completed. But executives told Steinhorn that it typically took too long for the IT group to implement new systems or deliver enhancements to existing systems.

Still, Steinhorn discovered that the IT organization had a wide range of other issues to improve upon. Because project work had been separate for each business division, the units' systems often didn't share common customer or market information, nor were they integrated with one another, says Carl Schwartz, director of planning and architecture for Hess' marketing and refining IT group.

> **It's an equal partnership now, where we're going to the business and partnering on ideas.**
> JEFF STEINHORN, CIO, HESS CORP.

So, for example, a business manager in the oil supplies division could be looking at a set of pricing data that didn't match what an energy marketing manager was seeing on his screen, says Steinhorn.

EXPLORING SUPPORT

After laying out a proposal to develop a five-year IT strategic plan at an executive meeting in the fall of 2006, Steinhorn got the nod from senior management to move ahead with the effort.

But winning that support didn't occur overnight, particularly since Steinhorn was new to the company and hadn't yet established relationships with members of the senior management team.

To help gain backing for the strategic planning initiative, Steinhorn started within IT by tapping some well-respected veteran IT managers to join the planning team. In his early conversations with the president of Hess' marketing and refining division, Steinhorn pointed to those managers' involvement, in order to emphasize that "it wasn't just me, the new guy, who was supporting this."

Another challenge Steinhorn faced was changing the mind-set of Hess' business executives, who had tended to look upon the IT staff as a low-cost provider and were used to making IT investments on a considerably smaller scale. "This five-year investment isn't huge, but it would require more invest-

At a Glance

Hess Corp.'s marketing and refining division, Woodbridge, N.J.

BUSINESS: An integrated energy services company with 1,300-plus retail gasoline outlets in the eastern U.S., oil refining and marketing operations, and electricity and natural gas services for industrial and commercial customers in the Mid-Atlantic and Northeast.

CORPORATE CIO: Jeff Steinhorn

IT STAFF SIZE: 80 application developers and 50 employees who support the IT infrastructure

2008 IT BUDGET: $45 million

ment than they were accustomed to making," says Steinhorn.

He gained the executives' buy-in by getting them to quantify the anticipated project benefits. "I would ask them, 'If we did these seven retail projects, what would be the bottom-line benefits for you?' " says Steinhorn. "We did that with each of the business areas, and suddenly the costs were a tenth of what all the benefits were expected to be."

A STRATEGIC PLATFORM

Hess' IT strategic planning structure has been divided into three components. The so-called B initiative represents a business application or business process improvement effort that's aimed at increasing revenue or generating cost savings.

Enabler, or "E," projects correspond with foundational efforts used to better support Hess' business applications. These include the implementation of business intelligence and analytical systems, the creation of a master data management system and the establishment of an integration framework to connect the common systems used by various business divisions within Hess' marketing and refining group.

A third area encompasses process, or "P," improvements within the IT organization itself, including efforts to create a standard approach to application development.

Within the first nine months of Hess' IT strategic planning efforts, Steinhorn's group has kicked off 17 projects and completed seven of them, including a major SAP upgrade and a reconfiguration of its retail energy system.

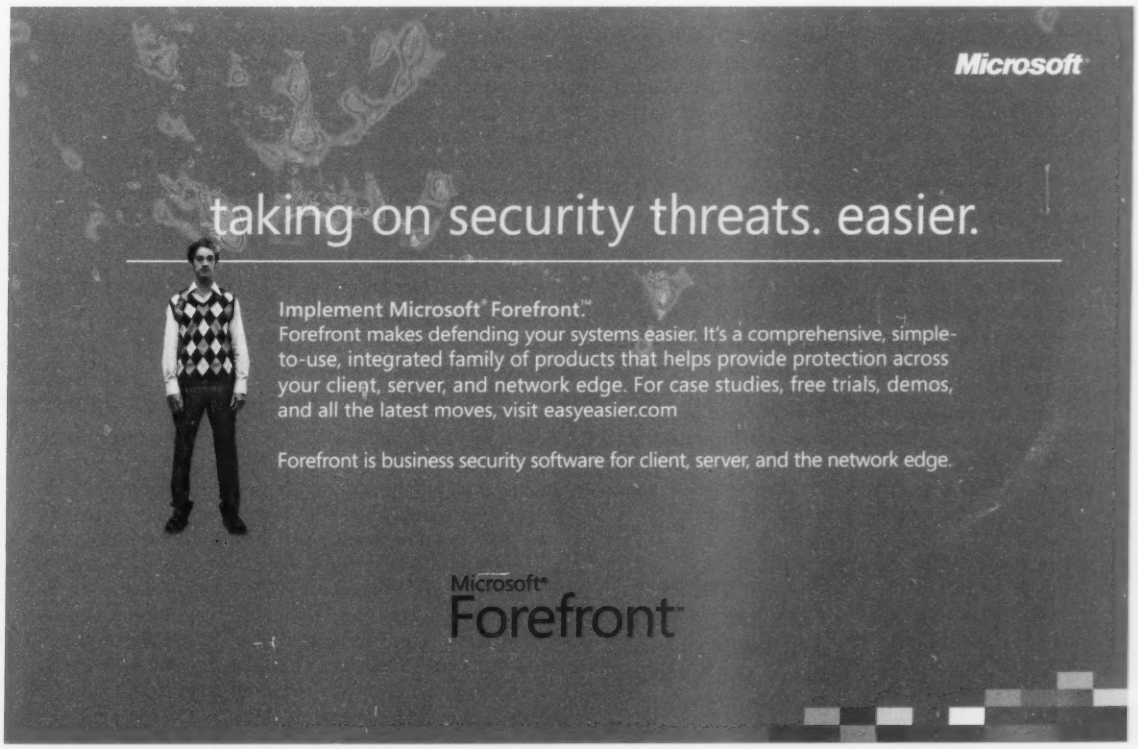
On the IT process side, the group developed standardized application development, project management and IT governance methodologies, and it implemented a performance tracking and scorecard system. Computer Sciences Corp. played a supporting role, serving as the project management office for the initiative.

Through the first year of the five-year IT strategic planning effort, Hess' IT organization has already seen improvements by having a more consistent application development methodology applied across the different businesses it supports, says Schwartz. Business-related projects are expected to deliver tens of millions of dollars in business benefits once they've been completed, adds Steinhorn. He pegs the start-up investments for the IT strategic planning effort at a few million dollars.

From a long-term perspective, the planning initiative "is giving us the platform and the environment to improve our ability to grow with the business and become more agile as the business opportunities change," says Schwartz.

Although 90% or more of Forrester's clients claim to have long-term IT strategies in place, there are still far too many IT professionals who need to think more strategically, Cameron says. "It's tough for IT to get out of the mind-set of 'this is an LDAP solution' and think more strategically about IT," he says. "That's where the most exciting changes are occurring."

Steinhorn can see it within his own organization. "It's an equal partnership now," he says, "where we're going to the business and partnering on ideas." ■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Confronting the Application Layer

A security manager **can't simply ignore** the things she doesn't understand. So it's time to **secure Web-enabled apps.**

Trouble Ticket

AT ISSUE: A security consultant quickly turns up problems with the application layer.

ACTION PLAN: Buckle down and finally learn about an aspect of security that's been ignored.

AN independent consultant is evaluating our security posture, and he'll be here for the next several weeks. It's the sort of thing that makes me as nervous as a mother whose child is applying to colleges. I used to be a security consultant myself, so I understand what the consultant is looking for. I have prepared. But it's always nerve-wracking to see your "children" judged by outsiders.

I'm glad we're following this security best practice, though I don't really expect any surprises. In fact, upon receiving the first of what will be many reports from the consultant, I broke into laughter, for there in writing was what we have long known to be our weakest link: the application layer.

I don't make any claims of being an expert in application-layer security. I don't have an application development background, and I find myself avoiding the topic. It's probably not the best position, but I don't know what to do about it. I am fairly expert at network security, Windows and Unix operating system security, physical security, wireless security, building security and access controls. But a security manager can't secure just the things she understands. All those other things could be tight as a drum, but it's all for naught if hackers can get in through the application layer.

And that's the problem with the application layer: Hackers can get in if it's not secured, because most applications have been Web-enabled.

Right now, we're protecting our applications by placing the Web servers in the DMZ, keeping the application and database servers behind the firewall, running "pinhole" connections between them, maintaining rules on whether a server can pull or push information, and mandating access control based on roles. The servers are patched on a regular basis (weekly, lately), and we scan for vulnerabilities. But that's about it. I'm trying to figure out how to ensure that the applications that are built in-house are properly secured.

■ The problem with the application layer is that, in an age of Web-enabled apps, hackers can get in.

I'm not sure where to start. I could never do a source-code audit. I wouldn't even know what I was looking for.

SEEKING ANSWERS

To gain some insight, I turned to the Nessus open-source tool and decided to run it against a production server that is accessible only by the security staff — or should be. We run several security applications on it. If I happened to knock down the server with my probing, I had access to bring it back online.

Nessus provided information on 30 open ports and offered 73 notes on those ports, eight warnings and zero holes. There are a few things we can do to better secure the server at the operating-system level, but I didn't learn much more than I already knew about how this server was configured. And, of course, it's behind a firewall. Not a particularly helpful exercise in understanding application-layer security. Any host in the DMZ would certainly not be listening on that many ports.

All the application-layer vulnerabilities spotlighted in the security consultant's report can be resolved by application patching. But I'm digging deeper, as I tend to do, because of the highly sensitive nature of the health information that's on our network.

And I do know that there are many ways of protecting applications. We can allow only certain types of communication between hosts, and we can encrypt data. But I have to wonder what else we can do. I'm sure that vendors will read that as an invitation to tell me all about their "application-layer security solutions." I hope they don't bother unless they can bring a fresh perspective to this topic. And they had better remember that we have no budget. ■

This week's journal is written by a real security manager, ***"C.J. Kelly,"*** *whose name and employer have been disguised for obvious reasons. Contact her at mscjkelly@yahoo.com.*

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JOIN IN

To join the discussion about security, go to **computerworld.com/blogs/security**.

Paul Glen

Changing the Subject

IF YOU want to really help your organization, one of the more subtle things you need to learn to do is to effectively change the subject.

Over the years that I've advised technical managers, young and old, some patterns have become apparent. One is that most seem to go through a series of distinct stages in their understanding of the role of manager. There are different stages for different aspects of the role, but the patterns are relatively consistent.

When it comes to beliefs about managers' roles in information flow, the pattern is interesting and instructive.

STAGE 1: The Translator
At this stage, the manager tends to see herself as merely a link in the vertical information chain. She takes orders from above, translates them to those below, collects status reports from those below and consolidates them for those above. It's an active, but not influential, role. The back rooms at the United Nations are filled with highly intelligent people wearing headsets, listening to one language and simultaneously speaking the same thing in a different one. It's an essential function, but no one thinks of these people as diplomats.

STAGE 2: The Defender
In the second stage, the manager sees herself as defender of her territory and underlings.

The passive link in the information chain is transformed into a heroic leader, placing herself in the path of the hostile onslaught. The dangers may come from above, from peer organizations or from outsiders, but the manager begins to see her role as not just passing along information, but also influencing the content of the information to the benefit of her group.

This stage may come quickly or not, depending on the toxicity of the general environment. If the world outside a manager's group is particularly hostile or her previous boss was a particularly weak defender, it tends to come quickly.

■ In the second stage, the manager sees herself as defender of her territory and underlings.

STAGE 3: The Participant
Eventually, the manager begins to see herself as more than a conduit or a belligerent, but as a participant in a managerial conversation. She takes on the role of adviser to the boss, collaborator to peers and mentor to subordinates. She now interprets information, shapes it, processes it, and selectively passes it on or withholds it as needed to move a broader conversation: the discussion of how the collective should deal with its reality.

The manager is now part of the larger system of making an organization go, contributing to decisions, taking positions, influencing policies. By now, she views the outside world as a more nuanced place, both hostile and filled with possibilities.

STAGE 4: The Agenda Setter
In the final stage, the manager takes part in an even more abstract conversation: that of setting the agenda for the managerial conversation itself. Now the manager begins to help shape the perceived reality of the organization, not just the managerial discussion of how to respond to that reality. Setting the agenda involves interpreting facts, opinions, predictions and feelings, as well as prioritizing and analogizing.

But more than anything, it involves building a consensus among a management team about what should be on the common agenda and, just as important, what should not be on that agenda.

Taking part in the agenda-setting conversation is not as simple as it may seem. As managers become aware of this role, they tend to be rather ham-fisted in their first attempts to force issues into the group consciousness, blurting out their ideas in open meetings or proposing solutions to problems that no one else perceives.

Learning to advance the agenda is largely the skill of changing the subject of the managerial conversation. To advance your managerial skills, assess your stage of development and start thinking about the next stage. ■

Paul Glen *is the founder of the GeekLeaders.com Web community and author of the award-winning book* Leading Geeks: How to Manage and Lead People Who Deliver Technology *(Jossey-Bass, 2003). Contact him at info@paulglen.com.*

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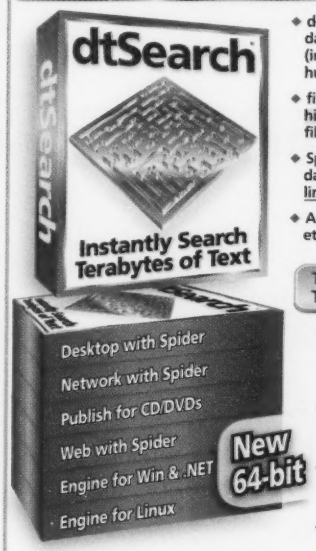

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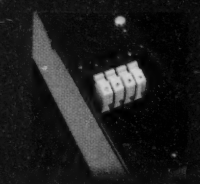

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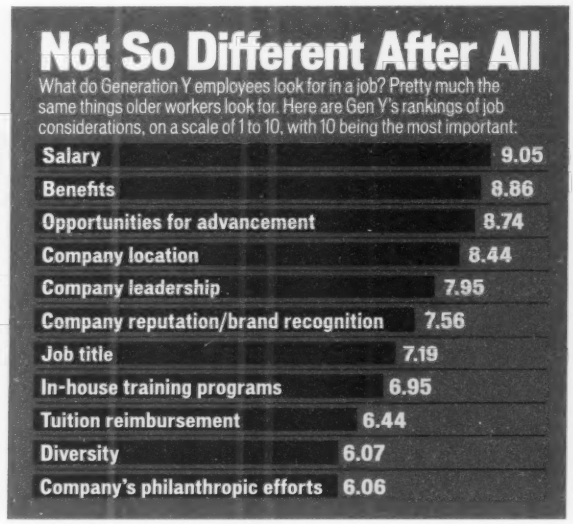
Career Watch

Not So Different After All

What do Generation Y employees look for in a job? Pretty much the same things older workers look for. Here are Gen Y's rankings of job considerations, on a scale of 1 to 10, with 10 being the most important:



Source: Robert Half Technology survey of 1,007 college-educated employees ages 21 to 28, fall 2007

IT: Economy's Bright Spot

The 8% increase in IT employment last year brought the total number of employed IT workers in the U.S. to 3.76 million, according to the Bureau of Labor Statistics. The IT unemployment rate fell just a tenth of a percentage point, though, from 2.2% at the end of 2006, suggesting that many of the people who had been looking for IT work at the beginning of the year were still looking 12 months later and that the new jobs went to others. Those "others" could include IT pros who hadn't been counted in the unemployment figures because they had abandoned their job searches, as well as people drawn to IT from other fields or foreign workers.

The prospects for the profession remain bright. The BLS has extended its estimate of job growth for various professions, which previously covered the period from 2004 to 2014. Now, in an estimate for 2006-16, it says employment in the computer and mathematical sciences will see the most growth, adding 822,000 jobs during the decade, for an overall growth rate of 24.8%.

292k
Number of U.S. IT jobs added in 2007.

2.1%
IT unemployment rate at the end of 2007.

SOURCE: U.S. BUREAU OF LABOR STATISTICS, YEAR-END HOUSEHOLD SURVEY

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■ Q&A

Thomas O. Davenport

The principal from professional services firm **Towers Perrin** talks about keeping IT workers engaged.

What are the biggest mistakes that employers make with respect to keeping IT staffers engaged? One of the major shortfalls we see is that employers are placing too much emphasis on programmatic or tangible rewards. Organizations need to understand that programmatic factors like bonuses and stock options have a big impact when recruiting people. But when it comes to engaging and retaining IT workers, organizations sometimes place too much emphasis on these factors and not enough on relationship management techniques.

What are some techniques that work? I was talking with folks at a major Silicon Valley organization the other day, and one of the things we both emphasize is career mobility. People want to be challenged and work for an organization that innovates; they want mobility, and they want novelty. Organizations that encourage innovation have a leg up. Meanwhile, the No. 1 retention driver is, "My manager inspires enthusiasm for work." IT professionals want to work on an engaging local team that has a lot of energy.

What steps can IT managers take to reassure staffers about their roles in light of the current economy? The only thing that keeps an IT job safe is the extent to which it contributes to business strategy. Whether they're supporting a service culture where customer service is critical or a manufacturing environment where cost management is critical, IT people can contribute to preserving their own jobs. Innovation is also key. The more they get away from maintenance-type activities, the more power they have over their own fate.

What are some best practices in recruiting IT professionals? What we find through multiple surveys that have been conducted on this topic is that the No. 1 attraction driver in IT globally is competitive pay. No. 2 is interesting work.

If you read the top 10 reasons for working at Google on their Web site, [the emphasis is on it being] fun and engaging. Compensation is the fifth element [listed]. The list focuses on the company's culture and the opportunity to work with other talented folks. They're saying, "Come here. You'll work with great people and do really interesting things, and by the way, you'll make good money along the way."

– THOMAS HOFFMAN

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Salary	9.05
Benefits	8.86
Opportunities for advancement	8.74
Company location	8.44
Company leadership	7.95
Company reputation/brand recognition	7.56
Job title	7.19
In-house training programs	6.95
Tuition reimbursement	6.44
Diversity	6.07
Company's philanthropic efforts	6.06

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Shark Tank

TRUE TALES OF IT LIFE AS TOLD TO SHARKY

But You Just Know He'll Find a Way

New project manager is hired by this specialty manufacturer, and he soon learns where he stands in the pecking order. Reports an IT support pilot fish on the scene: "In the past two days, he once came down with his wireless mouse in hand, complaining it wasn't working – I took off the piece of Post-it note covering the laser and handed it back. Then he called today, indicating he couldn't connect to the network – I told him to plug his network cord back in. I applaud him, though; he understands potential data-corruption issues and has chosen his retribution path to be noncomputer in nature."

It's Like April All Year Long

At this government agency's programming office, there's a legal requirement that a PC must lock itself after 15 minutes of inactivity. But what's the most effective way to enforce it? "We have taken to pranking any individual who leaves his desk without locking his desktop," says a pilot fish there. "If we find one of our co-workers' machines left open, we have a handy little program we coded that is always available on disk for the small-pranks section of our team." The program starts by flashing on-screen warnings about viruses and hacking found. Then it takes a screenshot of the desktop, makes that the desktop background image, puts all the desktop icons in a subdirectory and locks the workstation. When the panicked user sees the warnings and can't click on any desktop icons, he calls desktop support – which runs another program to undo all the rearranging, then lectures the user on the importance of locking his machine to protect against "hackers." "We wanted to add a message about an e-mail that was sent to their boss, copying everyone," fish adds. "But we wouldn't want anyone rushing to apologize to his boss unnecessarily, would we?"

Seen One, Seen 'Em All

Road warrior complains that his cell phone was stolen at an airport, and now he can't log into his laptop, either. Pilot fish, checking the laptop: "Is this your laptop?" User: Yes, it's my laptop and my computer bag. Fish: "This isn't your laptop. The log-in screen shows a computer name and domain that don't belong to our company." Fish figures it was swapped with an identical machine and bag at airport security, and the PC vendor helps track down the swapee. "But when our user's laptop was returned, the hard drive had been reformatted," reports fish. "Since they couldn't log into it, they thought it had a virus and wiped the hard drive. The cell phone was never recovered."

■ *Sharky is careful to pick up just the right true tales of IT life. Send me yours at sharky@computerworld.com, and you'll get a stylish Shark shirt if I use it.*

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Periodical postage paid at Framingham, Mass., and other mailing offices. Posted under Canadian International Publication agreement PM40063731. **CANADIAN POSTMASTER:** Please return undeliverable copy to PO Box 1632, Windsor, Ontario N9A 7C9. Computerworld (ISSN 0010-4841) is published weekly; except for a single combined issue the first two weeks of July and the last two weeks of December by Computerworld, Inc., 1 Speen Street, Box 9171, Framingham, Mass. 01701-9171.

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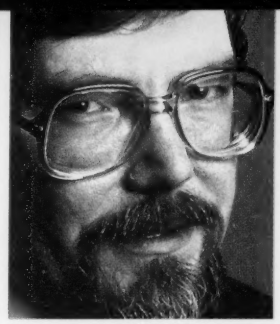
■ FRANKLY SPEAKING

Frank Hayes

Not Dead Yet



IT WASN'T supposed to be this way: Last week, IBM gave the AS/400 a new lease on life. At the Common 2008 user group meeting in Nashville, IBM announced that its venerable minicomputer hardware is being merged with its Unix product line, once called the RS/6000 (see story, page 16). Result: The system formerly known as the AS/400 just got cheaper, more modern — and harder to kill.

Don't you just *hate* it when things like that happen?

After all, we don't want these legacy systems to survive. We want them gone. We want to move their users to something that's easier for central IT to handle: mainframes if necessary, but preferably x86 server farms.

That way, we can manage everything in a consistent way, with maximum efficiency and without any distractions from legacy hardware or software.

Business effectiveness? Uh, sure, if you have to bring that up. But mainly, we want standardization. We want convergence. We want it over the carcasses of those dead minicomputers.

And IBM isn't helping.

True, our business units that use minicomputers like them. They like the pretty-close-to-lights-out operation. They like the fact that programmers know exactly how the built-in database will work.

They might not like the business-critical custom applications they've ported from one IBM minicomputer model to the next for 30 years, from the System/34 to the System/36 and 38 to the AS/400 to the iSeries to the System i. But they like the fact that they don't have to spend their IT budgets to rewrite those apps or even figure out decades of accumulated business-logic sediment.

And they didn't much like paying a premium for what, in recent years, was the same hardware IBM used for its Unix workstations and servers. But they paid it. They were pragmatic: It was the most cost-effective way to go.

■ It actually looks like the minicomputer is not dead – and may even be getting better. And that's just wrong.

Now IBM has eliminated that price premium and also made the new common hardware more attractive, with smaller footprints, blade form factors, fancy water cooling, sound dampers and reduced power consumption. It actually looks like the minicomputer is not dead — and it may even be getting better. And that's just wrong.

Why can't Big Blue be like Hewlett-Packard, which has driven its HP 3000 customers crazy by trying for years to kill off their minicomputers? HP stopped selling the machine in 2003 and has attempted to drive a stake through its heart ever since. Sure, those users have managed to pressure HP into extending some level of support until the end of 2010. But they're living under a death sentence, and they know it.

Like IBM, those users don't get it. We in IT have a blueprint, a road map, a grand plan. It's based on best practices, industry standards and everything else that will make the IT department look slick, smart and visionary — especially in the eyes of IT industry deep-thinkers.

Keeping legacy applications alive just because they're crucial to the business? Keeping legacy minicomputers going just because that's the only way to run those legacy apps? What kind of IT best practice is that?

Pragmatism be damned. We know the way things are supposed to be. Just because it's useful, cost-effective and mission-critical doesn't mean it's right.

The minicomputer is supposed to be dead. There's no place for it in the grand plan. All the really smart IT deep-thinkers say so.

Isn't it time for IT to take a stand against it — even if that kills us? ■

Frank Hayes *is* Computerworld*'s senior news columnist. Contact him at frank_hayes@computerworld.com.*

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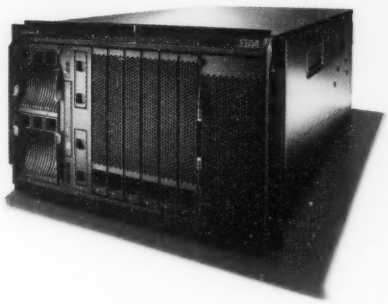

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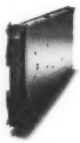

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